TOSHIBA DVD VIDEO RECORDER D-RW2SU / D-RW2SC

TOSHIBA

DVD VIDEO RECORDER

D-RW2SU / D-RW2SC

OWNER' S MANUAL

OPERATIONS GUIDE

TOSHIBA

Printed in China

1VMN22607 / E7A71CD ★★★★★

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Precautions

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION:
TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

The important note is located on the rear of the cabinet.

Laser Safety

This unit employs a laser. Only a qualified service person should remove the cover or attempt to service this device, due to possible eye injury.

CAUTION: USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

CAUTION: VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCK DEFEATED. DO NOT STARE INTO BEAM.

FCC WARNING- This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

RADIO-TV INTERFERENCE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1) Reorient or relocate the receiving antenna.
2) Increase the separation between the equipment and receiver.
3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4) Consult the dealer or an experienced radio/TV technician for help.

This Class B digital apparatus complies with Canadian ICES-003.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

A NOTE ABOUT RECYCLING

This product's packaging materials are recyclable and can be reused. Please dispose of any materials in accordance with your local recycling regulations.

Batteries should never be thrown away or incinerated but disposed of in accordance with your local regulations concerning chemical wastes.

Make your contribution to the environment!!!

- Used up batteries do not belong in the dust bin.
- You can dispose of them at a collection point for used up batteries or special waste. Contact your council for details.

For Customer Use:
Read carefully the information located at the back of this unit and enter below the Model No. and Serial No. Retain this information for future reference.
Model No. _____
Serial No. _____

IMPORTANT SAFEGUARDS

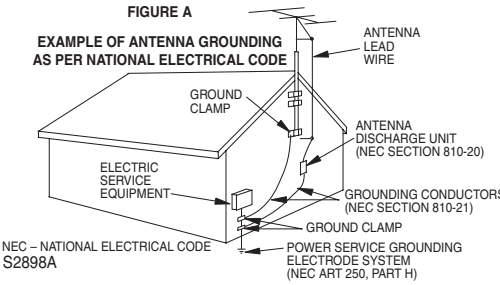
1. Read Instructions - All the safety and operating instructions should be read before the appliance is operated.
2. Retain Instructions- The safety and operating instructions should be retained for future reference.
3. Heed Warnings - All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions - All operating and use instructions should be followed.
5. Cleaning - Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
   EXCEPTION: A product that is meant for uninterrupted service and, that for some specific reason, such as the possibility of the loss of an authorization code for a CATV converter, is not intended to be unplugged by the user for cleaning or any other purpose, may exclude the reference to unplugging the appliance in the cleaning description otherwise required in item 5.
6. Attachments - Do not use attachments not recommended by the product manufacturer as they may cause hazards.
7. Water and Moisture- Do not use this product near water, for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.
8. Accessories - Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the appliance should follow the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

   PORTABLE CART WARNING
   (Symbol provided by RETAC)

   S3125A
9. Ventilation - Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
10. Power Sources - This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.
11. Grounding or Polarization - This product is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
12. Power Cord Protection - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
13. Outdoor Antenna Grounding - If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA No. 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. (Fig. A)

   FIGURE A

   EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE

14. Lightning - For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.
15. Power Lines - An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
16. Overloading - Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.
17. Object and Liquid Entry - Never push objects of any kind into this product through any openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
18. Servicing - Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
19. Damage Requiring Service - Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
    a. When the power-supply cord or plug is damaged.
    b. If liquid has been spilled, or objects have fallen into the product.
    c. If the product has been exposed to rain or water.
    d. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
    e. If the product has been dropped or damaged in any way.
    f. When the product exhibits a distinct change in performance this indicates a need for service.
20. Replacement Parts - When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.
21. Safety Check - Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
22. Heat - This product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

Installation Location

For safety and optimum performance of this unit:

- Install the unit in a horizontal and stable position. Do not place anything directly on top of the unit. Do not place the unit directly on top of the TV.
- Shield it from direct sunlight and keep it away from sources of intense heat. Avoid dusty or humid places. Avoid places with insufficient ventilation for proper heat dissipation. Do not block the ventilation holes on the sides of the unit. Avoid locations subject to strong vibration or strong magnetic fields.

Avoid the Hazards of Electrical Shock and Fire

- Do not handle the power cord with wet hands.
- Do not pull on the power cord when disconnecting it from AC wall outlet. Grasp it by the plug.
- If, by accident, water is spilled on this unit, unplug the power cord immediately and take the unit to authorized service centers for servicing. (For questions regarding authorized service centers, call TACP's Consumer Solution Center mentioned on page 157 or, for Canada, call TCL customer support line mentioned on page 158.)

Moisture Condensation Warning

Moisture condensation may occur inside the unit when it is moved from a cold place to a warm place or after heating a cold room or under conditions of high humidity. Do not use this unit at least for 2 hours until its inside gets dry.

About Copyright

The unauthorized recording, use, distribution, or revision of television programs, videotapes, DVDs and other materials, is prohibited under the Copyright Laws of the United States and other countries, and may subject you to civil and/or criminal liability.

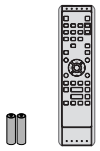
This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.

Notice for Progressive Scan Outputs

Consumers should note that not all high definition television sets are fully compatible with this product and may cause artifacts to be displayed in the picture. In case of picture problems with 525 progressive scan output, it is recommended that the user switch the connection to the 'standard definition' output. If there are questions regarding your TV set compatibility with this 525p DVD recorder, please contact TACP's Consumer Solution Center or ,for Canada, TCL customer support line.

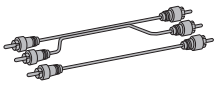
Supplied Accessory

- Remote control with two AA batteries

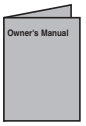


- RF cable

- Audio/Video cables



- Owner's Manual



- Owner's Manual - Français

- Quick Guide

- Quick Guide - Français

- Return Stop Sheet

Maintenance

■ SERVICING

- Please refer to relevant topics on “Troubleshooting” on pages 148-152 before returning the product.
- If this unit becomes inoperative, do not try to correct the problem by yourself. There are no user-serviceable parts inside. Turn off, unplug the power plug and please call TACP’s Consumer Solution Center mentioned on page 157. (For Canada, call TCL customer support line mentioned on page 158.)

■ CLEANING THE CABINET

- Use a soft cloth slightly moistened with mild detergent solution. Do not use any solution containing alcohol, spirits, ammonia or abrasive.

■ CLEANING DISCS

- When a disc becomes dirty, clean it with a cleaning cloth. Wipe the disc from the center to out. Do not wipe in a circular motion.
- Do not use solvents such as benzine, thinner, commercially available cleaners, detergent, abrasive cleaning agents or antistatic spray intended for analogue records.

■ CLEANING THE DISC LENS

- If this unit still does not perform properly although you refer to the relevant sections and to “Troubleshooting” in this Owner’s Manual, the laser optical pickup unit may be dirty. Consult an Authorized Service Center, TACP’s Consumer Solution Center or, for Canada, TCL customer support line for inspection and cleaning of the laser optical pickup unit.

■ DISC HANDLING

- Handle the discs so that fingerprints and dust do not adhere to the surfaces of the discs.
- Always store the disc in its protective case when it is not used.

“WMA” (Windows Media Audio) is a new audio codec developed by Microsoft® in the United States of America.

Manufactured under license from Dolby Laboratories. “Dolby” and the double-D symbol are trademarks of Dolby Laboratories.

“DTS” and “DTS Digital Out” are trademarks of Digital Theater Systems, Inc.

Dolby Digital Recording

“Dolby® Digital Recording enables consumers to record high-quality video with stereo sound on recordable DVD discs. The technology, when utilized instead of PCM recording, also saves recordable disc space, allowing for higher video resolution or extended recording time on each DVD. DVDs created using Dolby Digital Recording will play back on all DVD-Video players.”

Note:

This is true when the players are compatible with actual recordable DVD discs.

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Features

This DVD unit not only plays DVDs and CDs but also offers features for you to record to DVD discs and edit them after that.

The following features are offered with this unit.

Recording

This unit is compatible with both DVD-RW which is rewritable repeatedly, and DVD-R which is available for recording once. You can choose either one for your convenience.

■ **Up to 8 program recording:**
You can program the unit to record up to 8 programs, within a month in advance. Daily or weekly program recordings are also available.

■ **One-touch Timer Recording:**
You can easily set a recording time as you prefer. Every time [REC ●] is pressed during recording, the recording time will be increased by 30 minutes up to 8 hours. The unit will automatically turn off when the recording time you set is reached.

■ **Automatic Chapter marks setting:**
Chapter marks will be put on recordings as you set in the Setup menu before attempting to record.

■ **Automatic Title menu making:**
The unit makes title menus automatically when finalizing the disc which are recorded in Video mode.

■ **Automatic Playlist making (VR mode):**
A Playlist will be prepared from Original titles, so that you can edit titles in a Playlist as you prefer.
An Original title is kept as it is.

■ **Automatic finalizing (Video mode):**
You can finalize discs after finishing all Timer Recordings or at the end of the disc space automatically as you set in the Setup menu.

■ **Left channel stereo recording:**
This unit can record the sound of the Left channel monaural input as Left and Right channels automatically (the input from the LINE 2 only).

Play

■ **Theater surround sound in your home:**
When connecting the unit to an amplifier or a decoder which is compatible with Dolby Digital or DTS, you are allowed to experience the theater surround sound from discs with surround sound system.

■ **Quick search for what you want to watch:**
You can easily find the part you want to watch using the search function. Search for a desired point on a disc by title, chapter, track, or time.

■ **Start to play from Original and Playlist:**
Title playing is available from either Original titles or Playlist.

■ **Virtual Surround System:**
You can enjoy stereophonic space through your exciting 2 channel stereo system.

■ **Playing back MP3 and WMA disc:**
You can enjoy MP3 and WMA files which are recorded on CD-R/RW.

■ **JPEG Picture Viewer:**
JPEG files formatted on CD-R/RW can be played.

Editing

■ **Deleting titles:**
You can delete titles which you do not need any more.

■ **Making your own Playlist:**
With the original remains as it is, you can edit titles on various Playlist as you prefer.
Editing title names
Setting pictures for thumbnails
Adding or deleting chapter marks
Dividing a title/ combining titles
Deleting parts of titles etc.

■ **Protecting titles:**
To avoid editing or erasing titles, the protect function is useful when it is ON in the Original titles.

Compatibility

■ **Available for playing discs recorded in Video mode on a regular DVD player (Video mode):**
Discs recorded in Video mode can be played on regular DVD players, including computer DVD drives compatible with DVD-Video playback*. You will need to finalize the discs recorded in Video mode to play in other DVD players.
** DVD-Video Format (Video mode) is a new format for recording on DVD-R/RW discs that was approved by the DVD Forum in 2000. Adoption of this format is optional for manufactures of DVD playback devices and there are DVD-Video players, DVD-ROM drives or other DVD playback devices that do not play DVD-R/RW discs recorded in the DVD-Video Format.*

Others

■ **Progressive Scan system**
Unlike conventional interlace scanning, the progressive scan system provides less flickering and images in higher resolution than that of traditional television signals.

Choosing a disc

When you want to play DVD or CD software, load an appropriate disc into the recorder. There are many types and formats of discs. Please use the following information to select an appropriate disc.

Notes

- Handle the disc according to the disc instruction manual.
- Toshiba cannot guarantee that all discs bearing the DVD or CD logos will operate as expected. Additionally, Toshiba cannot guarantee that discs recorded in this device will operate properly in other DVD players, recorders and/or personal computer drives.

DVD disc types

★★★ : Most suitable ★★ : Can be used ★ : Some functions are limited — : Cannot be used

You want to	DVD-RW VR	DVD-RW Video	DVD-R
Record TV programs	★★★	★★★	★★★
Reuse by deleting unwanted contents	★★★	★★	—
Edit recorded contents	★★★	★	★
Edit/Record from connected equipment	★★★	★★★	★★★
Copy discs for distribution	★★*1	★★★	★★★
Play on other DVD equipment	★★*1	★★★	★★★

Features	DVD-RW VR	DVD-RW Video	DVD-R
Recording			
Rewritable?	Yes	Yes	No
Can create chapters at fixed intervals (auto.)	Yes	Yes	Yes
Can create chapters wherever you like (manual)	Yes	No	No
Can record 16:9 size pictures	Yes	Yes	Yes
Can record Copy-Once programs	Yes*2	No	No
Editing			
Can perform basic edit functions	Yes	Yes	Yes
Can perform advanced edit functions (Playlist edit)	Yes	No	No

*1 DVD-RW (VR mode) can only be played on DVD equipment that is VR compatible.
*2 The disc must be labeled as CPRM compatible.

Note:
For details of the above functions and implied restrictions, see the explanations in this manual.

For recording /playback

Disc	Mark	Specification	Remarks
DVD-R	DVD R R 4.7	• 4.7GB for General Ver.2.0 (8cm (3¼ in.)) (12cm (4¾ in.))	Read carefully the section “On DVD-R discs” (page 11). Depending on the disc status or the recording equipment, playback of the disc may not be possible on this recorder.
DVD-RW	DVD RW	• Ver. 1.1 and 1.2 (8cm (3¼ in.)) (12cm (4¾ in.))	Read carefully the section “On DVD-RW discs” (page 11). Depending on the disc status or the recording equipment, playback of the disc may not be possible on this recorder.

Using different disc types for different purposes

DVD-R/RW discs when creating your own original discs for distribution

DVD-R discs are designed to comply with the global standard DVD-Video format, and can be recorded only once. DVD-R discs are convenient when you edit your original content (recorded personal events such as a wedding party) with this recorder, transfer them to the recorder and make copies to send to your friends or relatives. The discs can be played on other compatible DVD players. DVD-RW discs, which are rewritable, can be used as well.

We cannot guarantee that DVD-R/RW discs recorded on this recorder will be playable on all DVD recorders/players. Similarly, there is no guarantee that all DVD-R/RW discs recorded on other recorders will be playable on this recorder.

Choosing a disc (cont'd)

For playback only

Disc	Mark	Specification	Remarks
DVD video disc	DVD VIDEO DVD VIDEO	• 12cm (4 3/4 in.) / 8cm (3 1/4 in.) • Region number 1 or ALL • Color system: NTSC	The region number of this DVD recorder is 1. If region numbers, corresponding to a specific playable area, are printed on your DVD video disc and you do not find Region 1 or ALL regions, or the disc is encoded to permit playback only in regions other than Region 1, disc playback will not be allowed by the recorder.
Audio CD (CD-DA)	COMPACT disc DIGITAL AUDIO	• 12cm (4 3/4 in.) / 8cm (3 1/4 in.)	
CD-R **CD-RW**	COMPACT disc Recordable COMPACT disc ReWritable	• 12cm (4 3/4 in.) • CD-DA FORMAT, MP3, WMA*, JPEG files	Depending on the disc status, playback may not be possible.
VCD (VIDEO CD)	COMPACT disc DIGITAL VIDEO	• 12cm (4 3/4 in.) / 8cm (3 1/4 in.) • Color system: NTSC • Version 1.1 and 2.0	Depending on the disc status, playback may not be possible.

DVD is a trademark of DVD Format/Logo Licensing Corporation.

*This DVD/CD player cannot playback the disc contents protected by Windows Media Digital Rights Management (DRM).

Plays Windows Media™

Microsoft, Windows Media, and the Windows logo are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

- You cannot play discs other than those listed above.
- You cannot play non-standardized discs even if they may be labeled as above.
- You cannot play discs with specialized encoding (such as SACD discs) or the DVD audio portions of DVD Audio discs.
- This recorder uses the NTSC color system, and cannot play DVD video discs recorded in any other color system (PAL, SECAM, etc.), even if they have region marks Region 1 or ALL regions.
- Toshiba cannot guarantee that all discs bearing the DVD or CD logos will operate as expected. Please see the discussion of compatibility on page 11.

- Toshiba is not liable for any damage or loss caused directly or indirectly by the malfunction of this recorder, including, without limitation, any one of the following:
  - Failure to record contents intended to be recorded by the consumer.
  - Failure to edit contents as intended by the consumer.
  - When a DVD-R/RW disc created on this recorder is used (e.g., insertion, playback, recording or editing) in another DVD player, recorder or personal computer drive.
  - When a DVD-R/RW disc that is used in the manner described in the immediately preceding bullet point is used again in this recorder.
  - When a DVD-R/RW disc that was recorded in another DVD recorder, or in a personal computer drive is used in this recorder.
- Some functions may not work with personal computer discs.
- Discs recorded in this recorder may not operate as expected on other DVD players, recorders or personal computer drives.

Because of problems and errors that can occur during the creation of DVD and CD software and/or the manufacture of DVD and CD discs, Toshiba cannot guarantee that product will play every feature of every DVD bearing the DVD logo and/or every CD bearing the CD logo. As one of the creators of DVD technology, Toshiba DVD players are manufactured using the highest standards of quality, and as a result, such incompatibilities are rare. If you happen to experience any difficulty playing a DVD or a CD on product, please feel free to contact us via the method listed in the "How to Obtain Warranty Services" section on page 157.

DVD players with RW COMPATIBLE are capable of playing DVD-RW recorded in VR mode.

On DVD-R discs

■ **Standards**
- DVD-R for General Ver.2.0 discs can be used for recording and playback.
- Discs compatible with the following recording speed can also be used:
  Ver. 2.0/2x
  Ver. 2.0/4x
  Ver. 2.0/8x
- Select discs labeled "for video", "for recording", "120 min." etc.

■ **Recording conditions**
- Images for which copying is prohibited or restricted (copy once or copy prohibited) cannot be recorded.
- We strongly recommend using any DVD-R 2x, and MAXELL DVD-R 16x to assure good recording quality.

■ **Discs that have been tested and are proven to be compatible with this recorder:**
VERBATIM DVD-R 8x
MAXELL DVD-R 16x

On DVD-RW discs

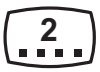
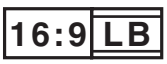
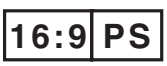
■ **Standards**
- Discs labeled DVD-RW Ver.1.1 or 1.2 can be used.
- Discs compatible with the following recording speed can also be used:
  Ver. 1.1/2x
  Ver. 1.2/4x
- Select discs labeled "for video", "for recording", "120 min." etc.

■ **Recording conditions**
- Images for which copying is prohibited (copy prohibited) cannot be recorded. If the disc is labeled as CPRM compatible, images for which copying is restricted (copy once) can be recorded in VR mode.
- We strongly recommend using any DVD-RW 4x disc to assure good recording quality.

■ **Discs that have been tested and are proven to be compatible with this recorder:**
VERBATIM DVD-RW 2x
JVC DVD-RW 4x

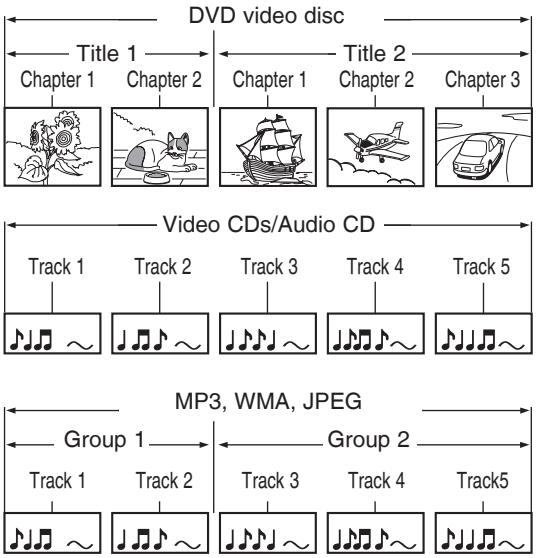
Marks on DVD video discs

The following are examples of marks and the meanings.

Mark	Meanings
	Number of audio streams recorded in the disc. (2 streams such as English and Japanese in this example.)
	Number of subtitle languages recorded in the disc. (2 subtitle languages are recorded in this example.)
	Number of camera angles recorded in the disc. (3 camera angles are recorded in this example.)
	Pictures are recorded in the standard picture shape (4:3 aspect ratio).
	Pictures are recorded in the letter box picture shape (4:3 aspect ratio with horizontal black bars in the top and bottom of pictures).
	Pictures are recorded in the 16:9 wide picture shape. TVs with 4:3 aspect ratio will display them in the letter box style.
	Pictures are recorded in the 16:9 wide picture shape. TVs with 4:3 aspect ratio will display them in the pan scan style (one or both sides of pictures are cut). Actual picture shape may vary depending on the aspect ratio or mode selection of the TV.

Structure of disc contents

Normally, DVD video discs are divided into titles, and the titles are subdivided into chapters.
Video CDs/Audio CDs are divided into tracks.

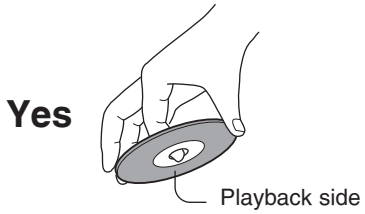


Title: Divided contents of a DVD video disc. Roughly corresponds to a story title in short stories.
Chapter: Divided contents of a title. This corresponds to a chapter in a story.
Track: Divided contents of a Video CD or an Audio CD.
Group: Divided contents of a MP3, WMA or JPEG data disc. Consists of number of tracks.

Each title, chapter, or track is assigned a number, which is called "title number", "chapter number", or "track number" respectively.
Some discs may not have these numbers.

On handling discs

● Do not touch the playback side of the disc.



● Do not stick paper or tape to discs.

On cleaning discs

● Fingerprints and dust on the disc cause picture and sound deterioration. Wipe the disc from the center outwards with a soft cloth. Always keep the disc clean.

● Do not use any type of solvent such as thinner, benzine, commercially available cleaners or antistatic spray for vinyl LPs. It may damage the disc.

On storing discs

● Do not store discs in a place subject to direct sunlight or near heat sources.
● Do not store discs in places subject to moisture and dust such as a bathroom or near a humidifier.
● Store discs vertically in a case. Stacking or placing objects on discs outside of their case may cause warping.

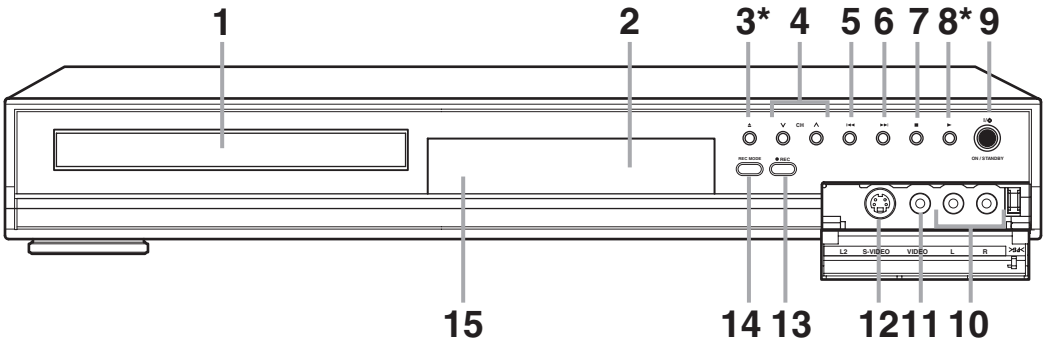
Discs and purposes

The table shows main functions which are available on this recorder per disc category.
This will help you choose discs.

	DVD-RW disc Video mode	DVD-RW disc VR mode	DVD-R disc Video mode
Characteristics on this recorder	Suitable for saving data in Video mode format to play on compatible devices. You can erase recorded contents to use the disc repeatedly.	Suitable for saving data in VR mode format to play on compatible devices. You can erase recorded contents to use the disc repeatedly.	Suitable for saving data in DVD-Video format to play on compatible devices. Once you execute Video mode finalizing process on a recorded disc so that it can be played on other players. You cannot make additions, corrections and deletions of contents on the disc.
For the first use	Initialize the disc.	Initialize the disc.	No preparatory steps required.
Recording a TV program	Yes	Yes	Yes
Erasing recorded contents	Yes If the disc has been executed Video mode finalizing process, first cancel the process then delete contents.	Yes You can erase recorded contents without canceling the finalizing process.	Yes Deleting contents cannot restore the disc space. After you execute Video mode finalizing process on a recorded disc, you cannot delete contents of the disc.
Recording additional content on a recorded disc	Yes If the disc has been executed Video mode finalizing process, first cancel the process then delete contents.	Yes You can add contents without canceling the finalizing process.	Yes After you execute Video mode finalizing process on a recorded disc, you cannot add contents to the disc.
Indexing recorded contents Naming a title Creating a thumbnail	Yes Yes Yes After you execute Video mode finalizing process on a recorded disc, you cannot name a title or create a thumbnail.	Yes Yes Yes After you execute VR mode finalizing process on a recorded disc, you can name a title or create a thumbnail.	Yes Yes Yes After you execute Video mode finalizing process on a recorded disc, you cannot name a title or create a thumbnail.
Collecting favorite scenes (Playlist Editing) Making a new title from a Playlist containing favorite scenes (Copy within the same disc)	No No	Yes Yes	No No
Playing contents recorded on this recorder, on other devices	Execute Video mode finalizing process on this recorder. This process makes the disc playable on other compatible devices. (Some models excepted.)	Execute VR mode finalizing process on this recorder. This process makes the disc playable on other compatible devices. (Some models excepted.)	Execute Video mode finalizing process on this recorder. This process makes the disc playable on other compatible devices. (Some models excepted.)
When a message appears and the loaded disc cannot be used:	Initialize the disc.	Initialize the disc.	—

Index to parts and controls

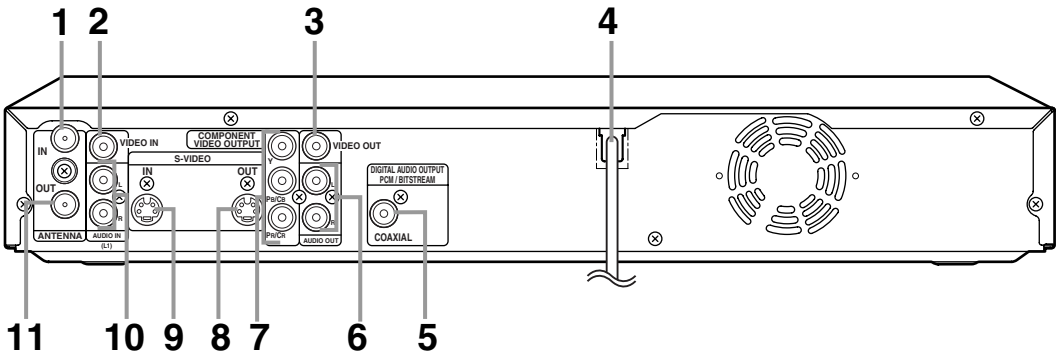
Front Panel



1. **Disc tray**
   Place a disc when open.
2. **Display**
   Refer to “Front Panel Display Guide” on page 18.
3. **⏏ (OPEN/CLOSE) button***
   Press to open or close the disc tray.
4. **CH ∨/∧ button**
   Press to change the channel up and down.
5. **⏮ (REV) button**
   During playback, press once midway through a chapter or track to go back to the beginning of the current chapter or track. When pressed twice in quick succession, playback will start from the preceding chapter or track.
   During playback, press and hold for 1.5 seconds to fast reverse.
   When playback is paused, press to play reverse step by step.
   When playback is paused, press and hold for 1.5 seconds to slow reverse.
6. **⏭ (FWD) button**
   During playback, press to skip to the next chapter or track.
   During playback, press and hold for 1.5 seconds to fast forward.
   When playback is paused, press to play advance step by step.
   When playback is paused, press and hold for 1.5 seconds to slow forward.
7. **■ (STOP) button**
   Press to stop play or recording.
8. **▶ (PLAY) button***
   Press to start or resume play.
9. **I/⏻ (ON/STANDBY) button**
   Press to turn the unit on and off.
   If timer programmings have been set, press to set the unit in timer-standby mode.
10. **AUDIO input jacks (LINE2)**
    Use to connect external equipment with a standard audio cable.
11. **VIDEO input jack (LINE2)**
    Use to connect external equipment with a standard video cable.
12. **S-VIDEO input jack (LINE2)**
    Use to connect the S-Video output of external equipment with an S-Video cable.
13. **● REC button**
    Press once to start a recording. Press repeatedly to start a One-touch Timer Recording.
14. **REC MODE button**
    Press to switch the recording mode.
15. **Remote control sensor**
    Receive signals from your remote control so that you can control the unit from a distance.

* The unit can also be turned on by pressing these buttons.

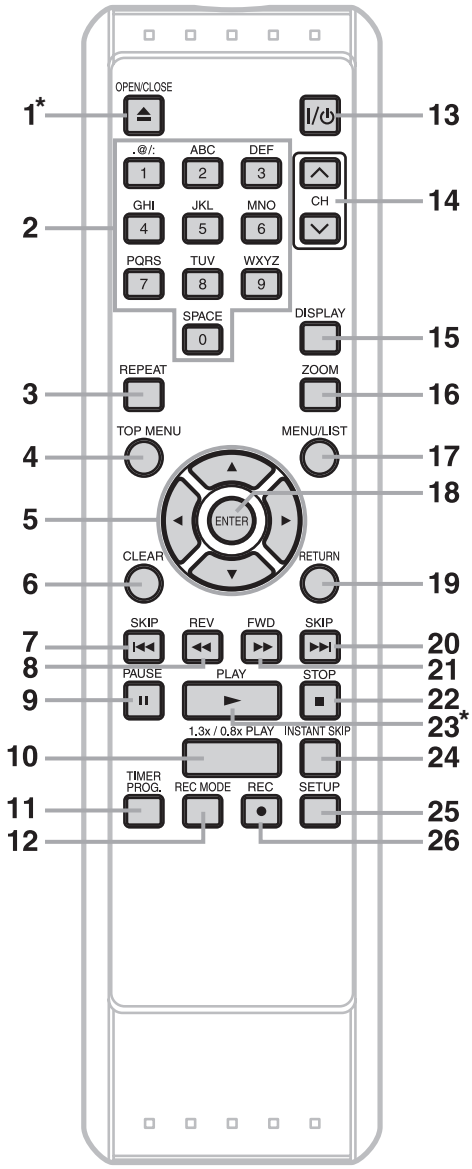
Rear Panel



1. **ANTENNA IN jack**
   Use to connect an antenna.
2. **VIDEO IN jack (LINE1)**
   Use to connect external equipment with a standard video cable.
3. **VIDEO OUT jack**
   Use to connect a TV monitor, AV receiver or other equipment with a standard video cable.
4. **AC Power Cord**
   Connect to a standard AC outlet to supply power to this unit.
5. **COAXIAL DIGITAL AUDIO OUTPUT jack**
   Use to connect an AV receiver, Dolby Digital decoder, DTS decoder or other equipment with a coaxial digital input jack with a digital coaxial cable.
6. **AUDIO OUT jacks**
   Use to connect a TV monitor, AV receiver or other equipment with a standard audio cable.
7. **COMPONENT VIDEO OUTPUT jacks**
   Use to connect a TV monitor with component video inputs with a component video cable.
8. **S-VIDEO OUT jack**
   Use to connect the S-Video input of a TV monitor, AV receiver or other equipment with an S-Video cable.
9. **S-VIDEO IN jack (LINE1)**
   Use to connect the S-Video output of external equipment with an S-Video cable.
10. **AUDIO IN jacks (LINE1)**
    Use to connect external equipment with a standard audio cable.
11. **ANTENNA OUT jack**
    Use to connect an antenna cable to pass the signal from the TV ANTENNA IN to your TV monitor.

Notes

- Do not touch the inner pins of the jacks on the rear panel. Electrostatic discharge may cause permanent damage to the unit.
- This unit does not have the RF modulator.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WXYZ
SPACE
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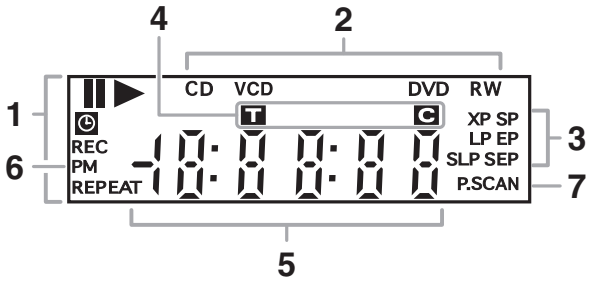
DISPLAY
REPEAT
ZOOM
TOP MENU
MENU/LIST
ENTER
CLEAR
RETURN
SKIP
REV
FWD
SKIP
PAUSE
PLAY
STOP
1.3x / 0.8x PLAY
INSTANT SKIP
TIMER PROG.
REC MODE
REC
SETUP

1. **OPEN/CLOSE ⏏ button***
   Press to open or close the disc tray.
2. **Number buttons**
   Press to select channel numbers. Press to select a title/chapter/track on display. Or press to enter values for the settings in the Setup menu.
3. **REPEAT button**
   Press to display the Repeat menu.
4. **TOP MENU button**
   Press to display the Title menu/list.
5. **Direction buttons (▲ / ▼ / ◄ / ►)**
   Press to select items or settings.
6. **CLEAR button**
   Press to clear the password once entered or to cancel the programming for CD or to clear the selecting marker number in the marker setup mode or to clear the program once entered in the Timer Recording setting mode, etc.
7. **SKIP |◄◄ button**
   During playback, press once midway through a chapter or track to go back to the beginning of the current chapter or track. When pressed twice in quick succession, playback will start from the preceding chapter or track. Or when playback is paused, press to play reverse step by step.
8. **REV ◄◄ button**
   During playback, press to fast reverse. Or when playback is paused, press to play slow reverse.
9. **PAUSE ❚❚ button**
   Press to pause play or recording.
10. **1.3x / 0.8x PLAY button**
    During playback, press to playback in a slightly faster/slower speed with keeping the audio quality.
11. **TIMER PROG. button**
    Press to display the Timer Programming list.
12. **REC MODE button**
    Press to switch the recording mode.
13. **I/⏻ ON/STANDBY button**
    Press to turn the unit on and off. If timer programmings have been set, press to set the unit in timer-standby mode.
14. **CH ∨/∧ buttons**
    Press to change the channel up and down.
15. **DISPLAY button**
    Press to display the On Screen menu on or off.
16. **ZOOM button**
    During playback, press to enlarge the picture on the screen.
17. **MENU/LIST button**
    Press to display the Disc menu. To change Original and Playlist on the TV screen.
    (VR mode only)
18. **ENTER button**
    Press to confirm or select menu items.
19. **RETURN button**
    Press to return to the previously displayed menu screen.
20. **SKIP ►►| button**
    During playback, press to skip to the next chapter or track.
    Or when playback is paused, press to play forward step by step.
21. **FWD ►► button**
    During playback, press to play fast forward. Or when playback is paused, press to play slow forward.
22. **STOP ■ button**
    Press to stop play or recording.
23. **PLAY ► button***
    Press to start or resume play.
24. **INSTANT SKIP button**
    During playback, press to skip 30 seconds.
25. **SETUP button**
    Press to display the Setup menu. During DVD playback, press and hold for more than 3 seconds to switch the progressive scanning mode to the interlace mode.
26. **REC ● button**
    Press once to start a recording. Press repeatedly to start a One-touch Timer Recording.

* The unit can also be turned on by pressing these buttons.

Front Panel Display Guide



1. Current Status of the unit

:Appears when disc playback is paused.

:Appears when playing a disc.

:Appears when the timer programming has been set or in progress. Flashes when all Timer Recordings have been finished, or when a program cannot be performed for some reason.

REC :Appears during recording process.

REPEAT

:Appears during repeat play.

2. Disc type

CD :Appears when an Audio CD or a disc with MP3, WMA or JPEG files is inserted in the disc tray.

VCD :Appears when a Video CD is inserted into the unit.

DVD :Appears when a DVD disc is inserted in the disc tray.

DVD R

:Appears when a DVD-R disc is inserted in the disc tray.

DVD RW

:Appears when a DVD-RW disc is inserted in the disc tray.

3. Recording mode

:Indicates the recording mode of the disc.

4. Title / Track and Chapter mark

:Appears when indicating a title/track number.

:Appears when indicating a chapter number.

5. Displays the following

- Playing time
- Current title / chapter / track number
- Recording time/ remaining time
- Clock
- Channel number
- OTR (One-touch Timer Recording) remaining time

6. PM

:Appears in the afternoon with the clock displaying.

7. P.SCAN

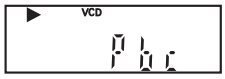
:Appears when the progressive scan system is activated.

■ Display message

Appears when the unit is turned on.

Appears when the unit is turned off.

Appears when the disc tray is opening.



The PBC function of the Video CD is activated.

Appears when the disc tray is closing.

Appears when a disc is loaded on the disc tray.

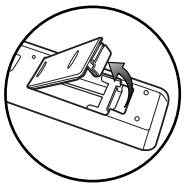
Appears when date is being recorded on a disc.

Preparation of the remote control

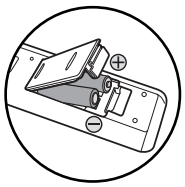
Installing batteries in the remote control

■ **Install two "AA" size batteries (supplied) matching the polarity indicated inside battery compartment of the remote control.**

1 **Open the cover.**

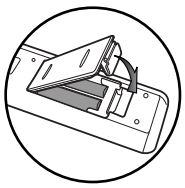


2 **Insert batteries.**



Make sure to match the + and - on the batteries to the marks inside the battery compartment.

3 **Close the cover.**



Caution:

Never throw batteries into a fire.

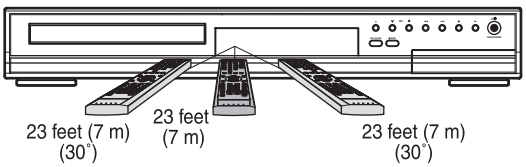
Notes:

- Be sure to use AA size batteries.
- Dispose of batteries in a designated disposal area.
- Batteries should always be disposed of with the environment in mind. Always dispose of batteries in accordance with applicable laws and regulations.
- If the remote control does not operate correctly, or if the operating range becomes reduced, replace batteries with new ones.
- When necessary to replace batteries in the remote control, always replace both batteries with new ones. Never mix battery types or use new and used batteries in combination.
- Always remove batteries from remote control if they are dead or if the remote control is not to be used for an extended period of time. This will prevent battery acid from leaking into the battery compartment.

Using a remote control

■ **Keep in mind the following when using the remote control:**

- Make sure that there is no obstacle between the remote control and the remote sensor on the unit.
- Remote operation may become unreliable if strong sunlight or fluorescent light is shining on the remote sensor of the unit.
- Remote control for different devices can interfere with each other. Avoid using remote control for other equipment located close to the unit.
- Replace the batteries when you notice a fall off in the operating range of the remote control.
- The maximum operable ranges from the unit are as follows.
  - **Line of sight**: approx. 23 feet (7m)
  - **Either side of the center**: approx. 23 feet (7m) within 30°

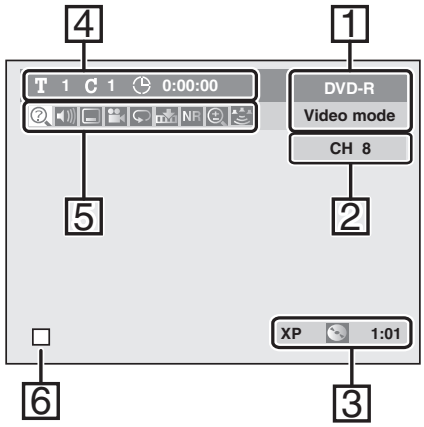


On Screen menu

This unit uses following On Screen menu for most operations: Setup menu, Title list, Playlist, Original and Display menu. They allow you to change the playing status of disc during playback.
The Display menu also gives you information on the status of the disc.

Display menu

Press [DISPLAY] to call up the Display menu. This menu will give you the information on the playing disc. Some operations are available while disc is playing.



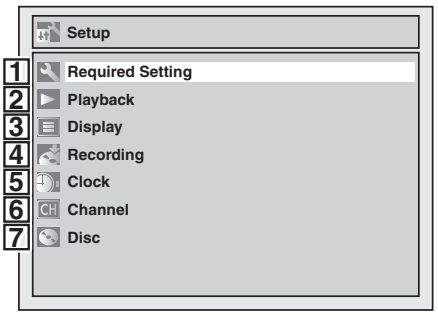
1. Indicates a disc type and a format mode.
   NOTE:
   In some descriptions on this manual, only one disc type is indicated as an example.
2. Indicates a channel number.
3. Indicates a recording mode and possible recording time left.
4. Indicates a title number, chapter number and the elapsed time of disc played.
5. Each icon means:

   : Search
   : Audio
   : Subtitle
   : Angle (except VR mode)
   : Repeat
   : Marker
   : Noise Reduction
   : Zoom
   : Surround

6. Indicates current disc status.

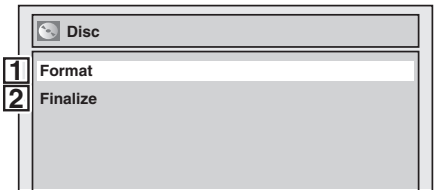
Setup menu

Press [SETUP] to display the Setup menu, then use [▲ / ▼] and press [ENTER] to display each menu.
These menus provide entries to all main functions of the unit.

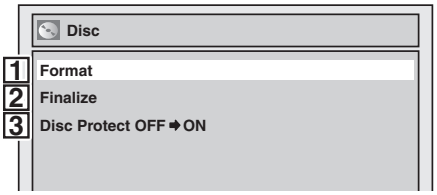


1. **Required Setting:**
   To set up the required setting.
2. **Playback:**
   To set up the unit to play discs as you prefer.
3. **Display:**
   To set up the TV screen and the front panel display of the unit as you prefer.
4. **Recording:**
   To set up the unit to record to discs as you prefer.
5. **Clock:**
   To set up the clock of the unit.
6. **Channel:**
   To adjust the channel setting of the unit as you prefer.
7. **Disc / CD Playback Mode:**
   When a DVD-Video disc (commercially available), a new DVD-R disc is inserted into the unit, you cannot select "Disc".
   "CD Playback Mode" is available only when an Audio CD, Video CD, a CD-R/RW disc with MP3, WMA or JPEG files is inserted into the unit.

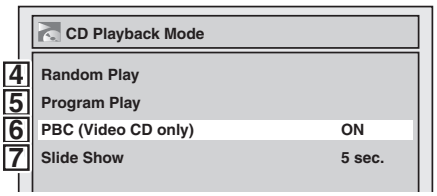
<DVD-R,DVD-RW (Video mode)>



<DVD-RW (VR mode)>



<Audio CD, MP3, WMA, JPEG, Video CD>



1. **Format (DVD-RW only):**
   Allows you to erase all of the recorded content on the disc.
   The disc will be completely blank.
   - Erased content cannot be called back.
   - A DVD-RW disc formatted with this unit cannot be used in other DVD recorders without any recording using this unit.
   - If you want to use a disc only formatted with this unit on another DVD recorder, you have to re-format the disc on that recorder.
2. **Finalize:**
   Allows you to finalize a disc containing recorded titles.
3. **Disc Protect (VR mode only):**
   Allows you to protect a disc from accidental editing or recording.
4. **Random Play:**
   To activate the random playback feature.
5. **Program Play (Audio CD and Video CD only):**
   To activate the programmed playback feature.
6. **PBC (Video CD only):**
   Set the PBC function “ON” or “OFF”.
7. **Slide Show (JPEG files only):**
   Select the display time.

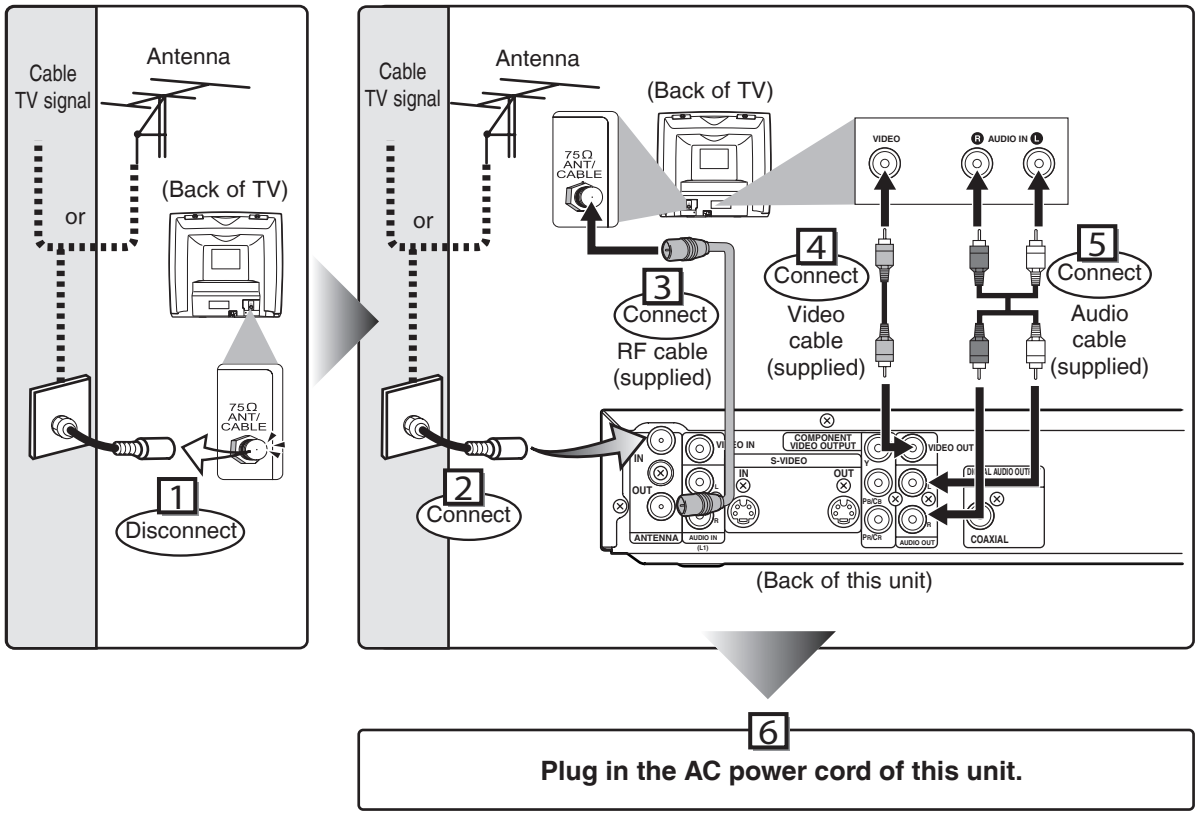
Connections

Connect your recorder to your TV or stereo system.

- **Connection to a TV**
- **RF modulator Connection**
- **Connection to a cable box or satellite box**
- **Connection to an Audio System**

Connection to a TV

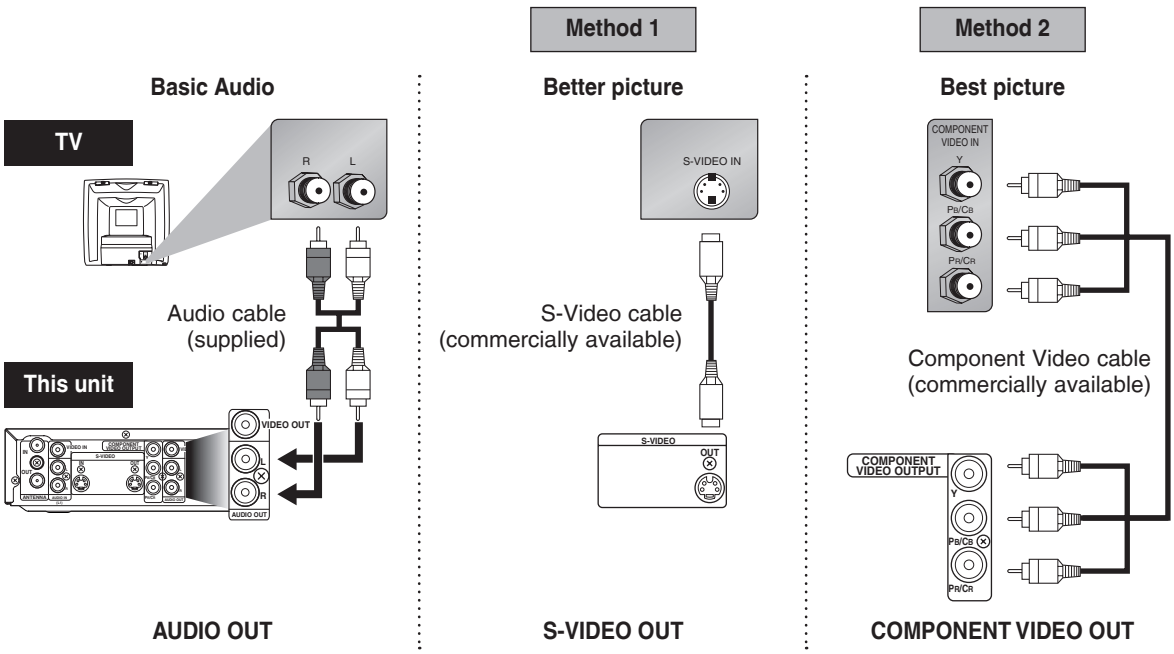
Connect your TV and the antenna to this recorder for recording and to view broadcast signals on the TV.



Note

- RF output is for tuner pass through only. DVD Playback through the RF is not possible. Please see the next page for connection options.

Make one of the following connections, depending on the capabilities of your existing equipment.



After you have completed the connections

- Switch the input selector on your TV to an appropriate external input channel (usually near channel 0). Press a button on the TV's original remote control that selects an external input channel until the DVD recorder's picture appears. Check your TV owner's manual for details.

Notes

- Connect this unit directly to the TV. If the A/V cables are connected to a VCR, pictures may be distorted due to the copy protection system.
- **When Progressive Scan mode is selected, no video signal will be output from the VIDEO OUT or S-VIDEO OUT jack.**

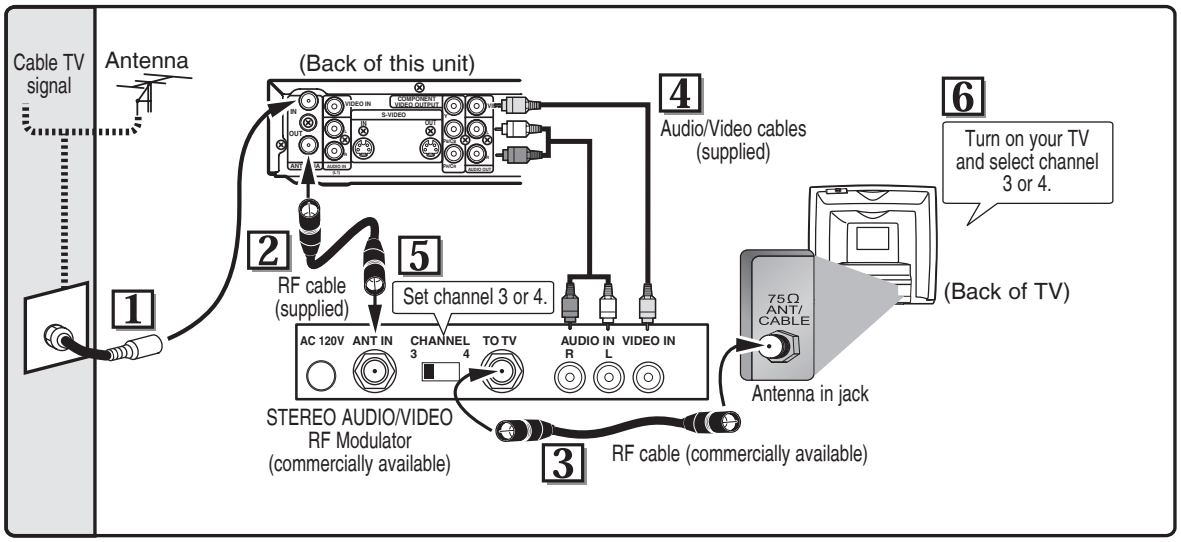
- This unit is compatible with the Progressive Scan System. The feature provides you with the higher definition images than the traditional output system does. To utilize this feature, you must set Progressive Scan mode to "ON".

To set progressive scan mode, refer to page 143.

RF modulator Connection

If your TV has Antenna in jack only, it is still possible to connect this unit to your TV by using a Stereo Audio/Video RF modulator. In this case, follow the instructions below.

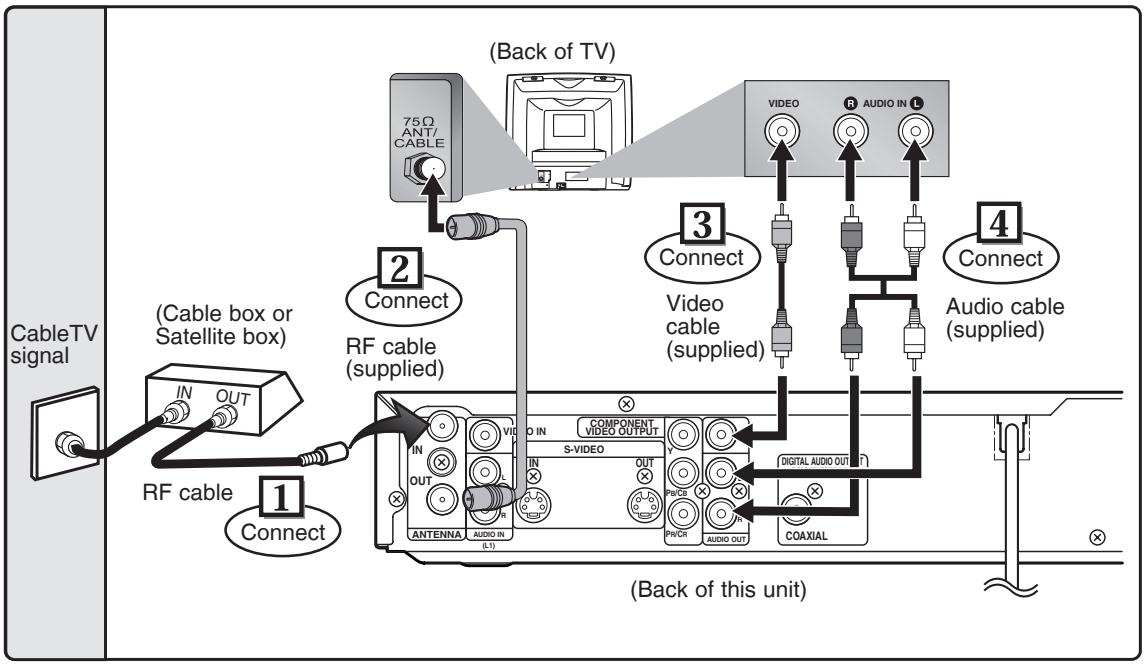
1) The antenna input jack of your TV may have been already occupied. If so, disconnect the RF cable from your TV, and then connect the RF cable to the ANTENNA IN jack of this unit.
2) Connect the ANTENNA OUT jack of this unit to your RF modulator (usually marked “ANT IN”) by the RF cable.
3) Connect your RF modulator to your TV by another RF cable.
4) Connect the AUDIO/VIDEO output jacks of this unit to the AUDIO/VIDEO input jacks of your RF modulator by Audio/Video cables.
5) Set your RF modulator’s channel 3/4 switch to either 3 or 4, whichever the TV channel is least used in your area. If your RF modulator has a Modulator/Antenna switch, set it according to your RF modulator’s manual.
6) Turn on your TV and choose the same channel as you set the RF modulator’s channel 3/4 switch to.
   For more details, follow the instructions supplied with the RF modulator.



Note

• The quality of picture may become poor if this unit is connected to an RF modulator.

Connection to a cable box or satellite box



■ **With this setup:**

- You can record any unscrambled channel by selecting the channel on the cable box or satellite box. Be sure that the cable box or satellite box is turned on.
- You cannot record one channel while watching another channel.

Note to the Cable TV System Installer :

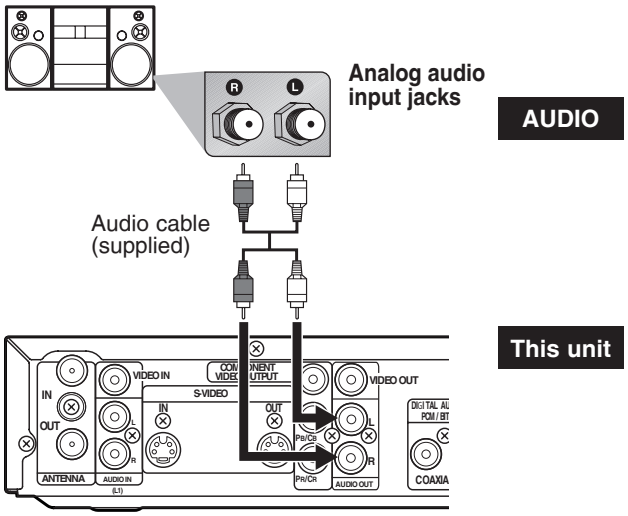
This reminder is provided to call the Cable TV system installer's attention to Article 820-40 of the National Electrical Code, which provides guidelines for proper grounding - in particular, specifying that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as possible.

Connection to an Audio System

- When you change the connections, all devices should be turned off.
- Refer to the operation manual accompanying external devices for more information.

Method 1

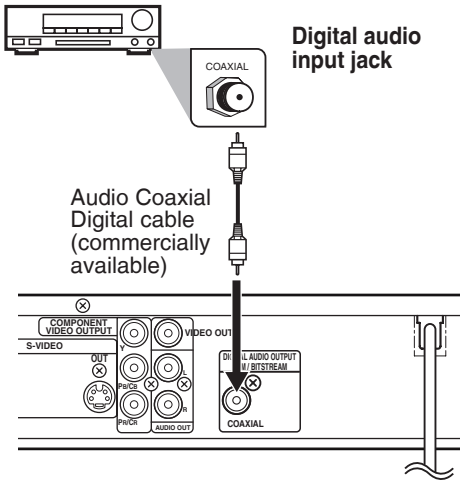
Stereo system



AUDIO OUT

Method 2

Dolby Digital decoder, DTS decoder, MD deck or DAT deck



DIGITAL AUDIO OUT

Note

- Playing a DVD using incorrect settings may generate noise distortion and may also damage the speakers.

Connection \ Setting	Setup >Playback >Audio >Digital Out >		
	PCM	Dolby Digital	DTS
If output is Dolby Digital encoded audio, connect to a Dolby Digital decoder.	—	STREAM	OFF
If output is DTS encoded audio, connect to a DTS decoder.	—	PCM	ON
If output is encoded audio for both Dolby Digital and DTS, connect to the decoder which encodes multiple audio sources.	—	STREAM	ON
Connecting to an MD deck or DAT deck.	—	PCM	OFF
If not connected to any external devices.	—	PCM	OFF

* To complete these settings, refer to pages 137-139.

Notes

- The audio source on a disc in a Dolby Digital Multi-channel surround format cannot be recorded as digital sound by an MD or DAT deck.
- By connecting this unit to a Multi-channel Dolby Digital decoder, you can enjoy high-quality Dolby Digital Multi-channel surround sound as heard in the movie theaters.
- Playing a DVD using incorrect settings may generate noise distortion and may also damage the speakers.
- By connecting this unit to the DTS decoder, you can enjoy Multi-channel Surround System which reproduces the original sound as truthfully as possible. Multi-channel Surround System is developed by the Digital Theater Systems Inc.

Basic Setup

Read this chapter for necessary settings to get started.

- **Initial setting**
- **Channel setting**
- **Selecting TV stereo or SAP**
- **Setting the clock**
- **Selecting TV aspect ratio**

Initial setting

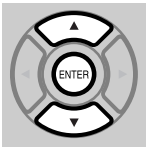
Turn on this unit for the first time, you need to follow these steps.

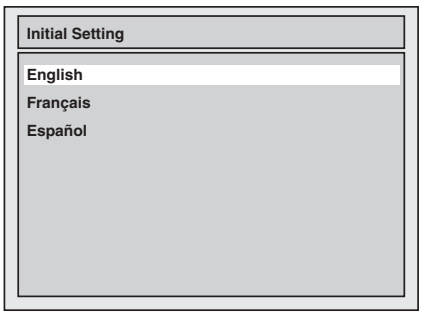
1 **Press [I/⏻ ON/STANDBY].**

2 **Turn the TV on. Select the input to which the unit is connected.**

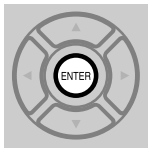
"Initial Setting" will automatically appear.

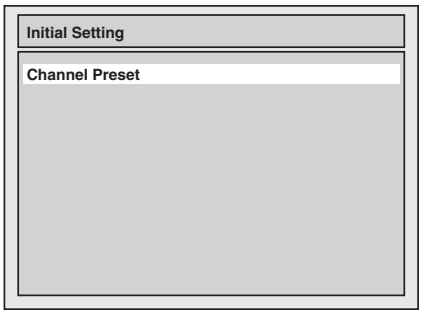
3 **Using [▲ / ▼], select your desired language for the on screen menu. Then press [ENTER] to go to next step.**





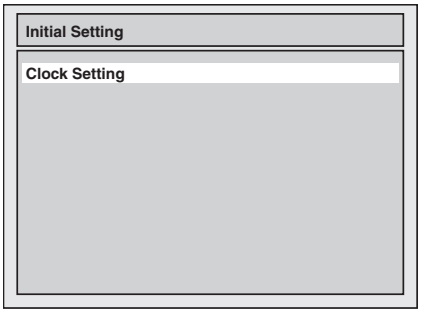
4 Press [ENTER] to start Channel Preset.





The unit will start getting channels available in your area.

5 After channel setting is finished, “Clock Setting” will appear. Then press [ENTER].



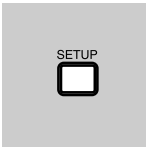
6 Follow the steps 3 to 7 on pages 41-43 for “Manual Clock Setting”.

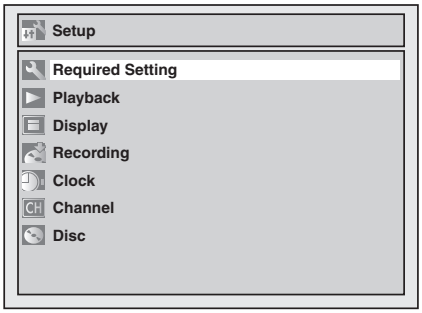
Channel setting

Setting channels automatically

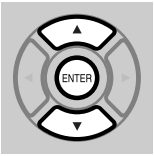
If you have changed antenna connection, we recommend you to program channels which are available in your area with the following procedures.

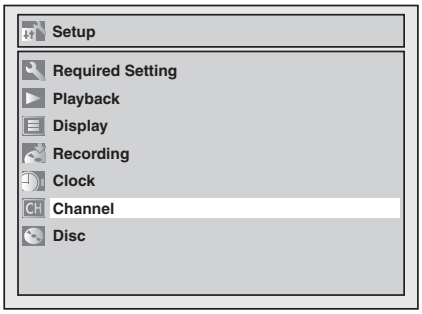
1 **Press [SETUP].**



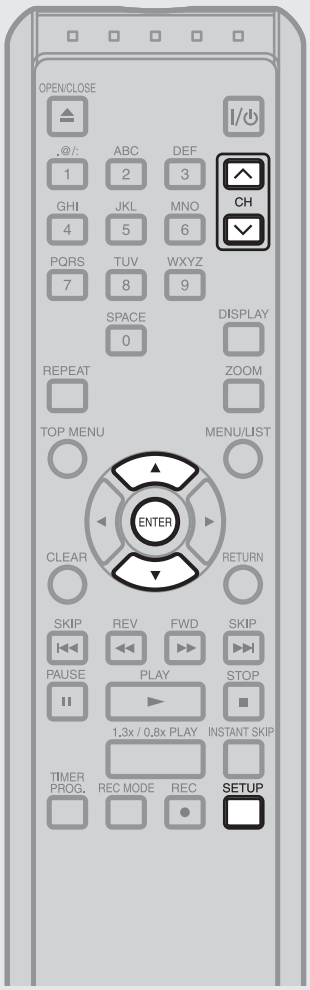


2 **Using [▲ / ▼], select “Channel”. Press [ENTER].**



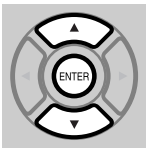


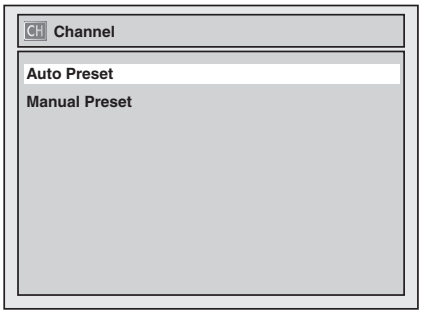
Channel menu will appear.



3 Using [▲ / ▼], select “Auto Preset”. Press [ENTER].

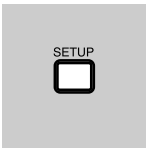
The unit will start presetting channels available in your area automatically.

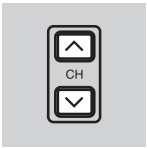




4 Press [SETUP] after scanning.

You can select only the channels memorized in this unit by using [CH ∧/∨].





■ To select a channel

You can select a channel by directly entering channel with **the Number buttons** on the remote control.

Notes for using the Number buttons:

- When selecting cable channels which are higher than 99, enter channel numbers as a three-digit number.(For example: 117, press **[1], [1], [7]**)
- You must precede single-digit channel numbers with a zero (For example: 02, 03, 04 and so on).
- You can select the line input mode (“L1” or “L2”). To select “L1” by pressing **[0], [0], [1]**. To select “L2” by pressing **[0], [0], [2]**. Details are on pages 68-69.

Notes

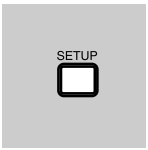
- If the auto presetting is cancelled during presetting, some channels not yet preset may not be received.
- The selection will depend on the number of stations that it has found.

Press [RETURN] or [SETUP] to cancel the auto presetting during scanning.

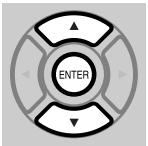
Adding/deleting channels

The channels you no longer receive or seldom watch can be deleted from the memory. You also may add channels into the memory.

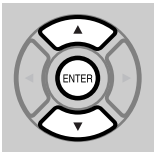
1 **Press [SETUP].**

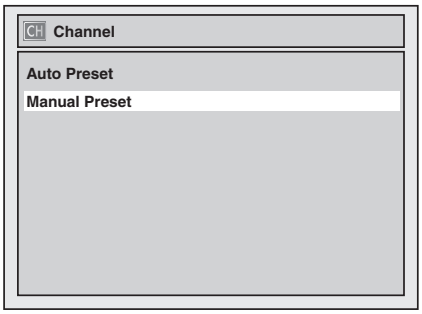


2 **Using [▲ / ▼], select "Channel".**
Press [ENTER].
Channel menu will appear.



3 **Using [▲ / ▼], select "Manual Preset".**
Press [ENTER].

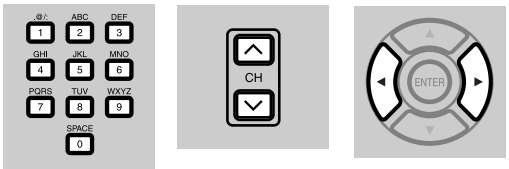




Manual Preset menu will appear.

4 Select the channel number to add or delete.

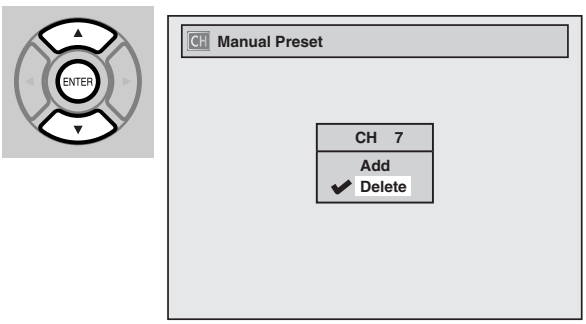
Press [◄] or [CH∨] to move to a lower channel number.
Press [►] or [CH∧] to move to a higher channel number.
Press **the Number buttons** to select a channel number directly.



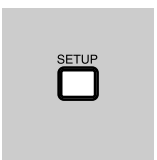
[CH ∧/∨] works on the memorized channel in this unit.
[◄ / ►] works on all channel numbers.

5 Using [▲ / ▼], select “Add” or “Delete”. Press [ENTER].

The channel number will be added or deleted from the channel memory. Then the next channel number will appear so that you can continue adding or deleting channels.



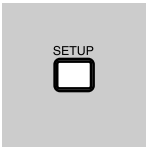
6 Press [SETUP] to exit.



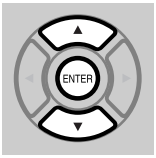
Selecting TV stereo or SAP

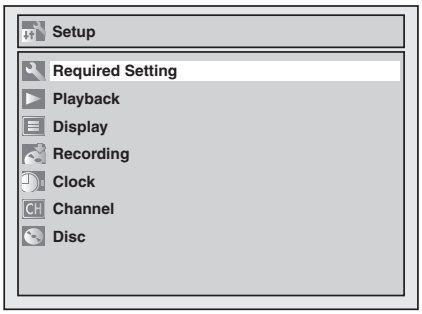
You can select a sound channel to output from TV. "Stereo" has been selected as the default.

1 Press [SETUP].



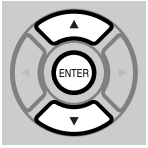
2 Using [▲ / ▼], select "Required Setting". Press [ENTER].

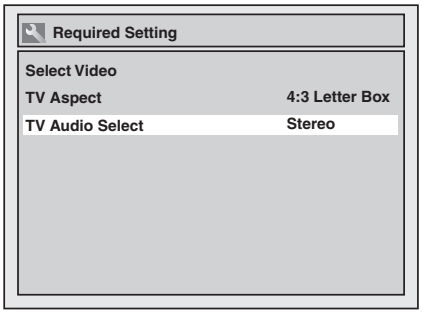




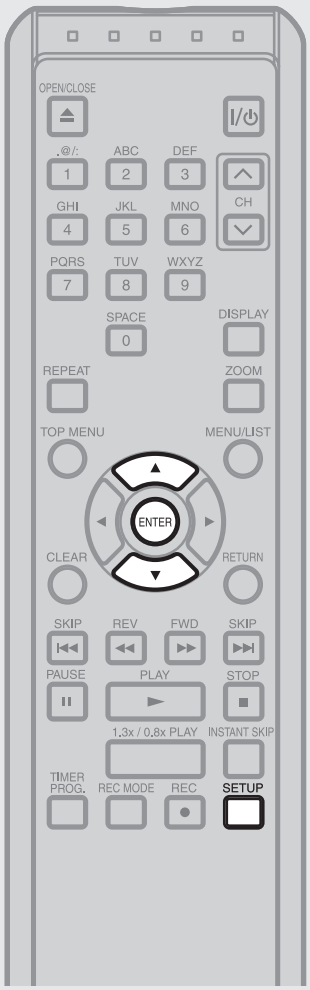
Required Setting menu will appear.

3 Using [▲ / ▼], select "TV Audio Select". Press [ENTER].

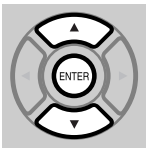


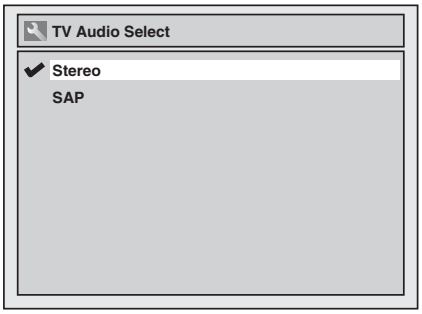


Option window will appear.



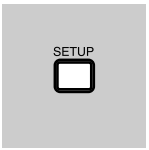
4 Using [▲ / ▼], select “Stereo” or “SAP”. Press [ENTER].





Stereo:
Outputs main audio.
SAP (Secondary Audio Program):
Outputs sub audio.

5 Press [SETUP] to exit.



Notes on TV channel audio

- This unit CANNOT record in both Stereo (main) and SAP (sub) at the same time.
- If you want to record a TV program available in second audio or stereo on a DVD-RW/R, you have to select either Stereo or SAP in the “ TV Audio Select ” beforehand. Refer to the following table to check an appropriate setting.
- You can only play the disc in second audio if a TV program is available in second audio and you set “ TV Audio Select ” to “ SAP ”.

Selected audio	Broadcast audio		Disc Recording
	Main-audio channel	Sub-audio channel	
Stereo	STEREO	SAP	STEREO
	STEREO	NONE	STEREO
	MONO	SAP	MONO
	MONO	NONE	MONO
SAP	STEREO	SAP	SAP
	STEREO	NONE	STEREO
	MONO	SAP	SAP
	MONO	NONE	MONO

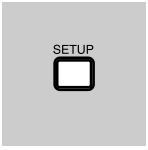
Setting the clock

Auto Clock Setting

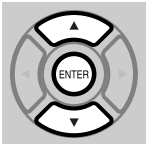
Set the clock before you try the Timer Recording. If a Public Broadcasting Station (PBS) is available in your area, follow "Auto Clock Setting" below. If not, follow "Manual Clock Setting" on page 41.

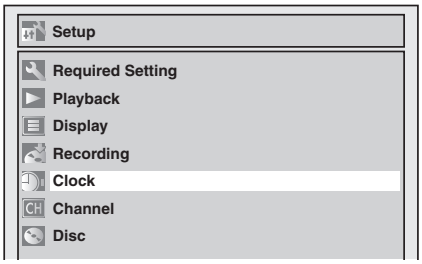
Make sure
- The antenna/Cable TV connections are correct.
- If this unit is connected to a Cable Box or Satellite Box, select the local PBS station on them to set the clock automatically.

1 Press [SETUP].



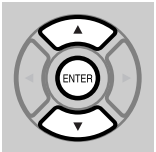
2 Using [▲ / ▼], select "Clock". Press [ENTER].

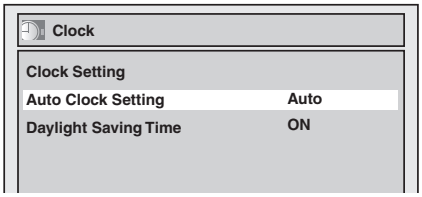




Clock menu will appear.

3 Using [▲ / ▼], select "Auto Clock Setting". Press [ENTER].

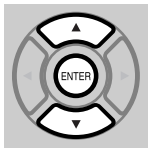


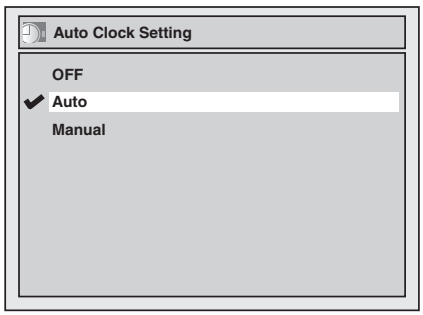


Option window will appear.

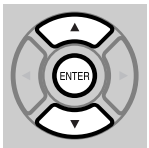
4 If you do not know your PBS channel number: Using [▲ / ▼], select “Auto”. Press [ENTER].

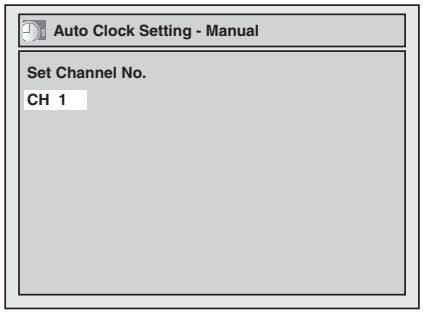
The setting will be activated.

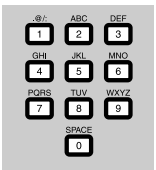




If you know your PBS channel number: Using [▲ / ▼], select “Manual”. Press [ENTER].







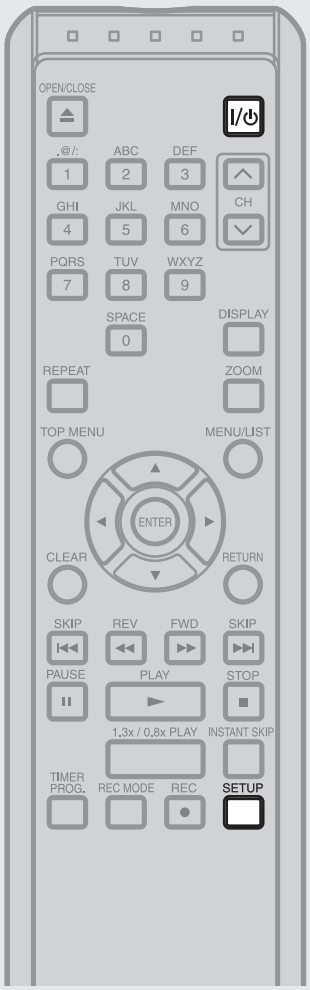
Using the Number buttons or [▲ / ▼], enter your PBS channel number. Press [ENTER].

The setting will be activated.

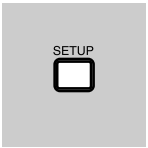
If you want to set the clock manually and cancel the Auto Clock Setting function: Using [▲ / ▼], select “OFF” at the step 4. Press [ENTER].

The Auto Clock Setting function will be canceled.

(Continued)



5 Press [SETUP] to exit.



6 Press [I/⏻ ON/STANDBY] to turn off the unit.

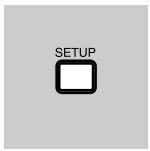
This unit will search for the time only when the power is off. Leave it off for several minutes to give this unit time to set the clock on the front panel display.

Notes

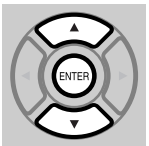
- The clock may set itself automatically after you connect the antenna/cable signal to this unit and plug in the power cord. In this case, the current time will appear on the front panel display.
- If the current time is not displayed or the displayed clock is not correct, set the clock manually.

Manual Clock Setting

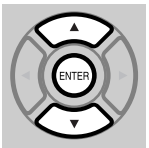
1 **Press [SETUP].**

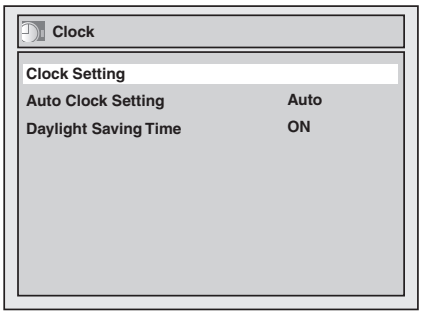


2 **Using [▲ / ▼], select “Clock”. Press [ENTER].**



3 **Using [▲ / ▼], select “Clock Setting”. Press [ENTER].**





Clock Setting menu will appear.

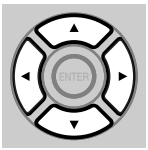
Press [ENTER] again.

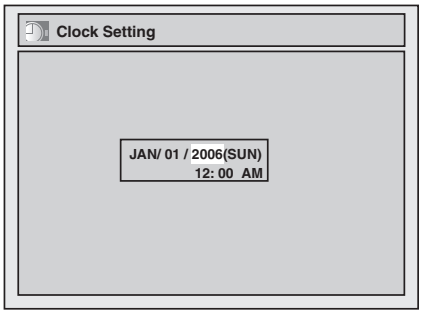
Default date will appear.

(Continued)

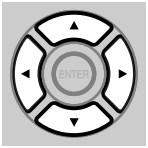
4 Using [▲ / ▼], enter the date (month / day / year).

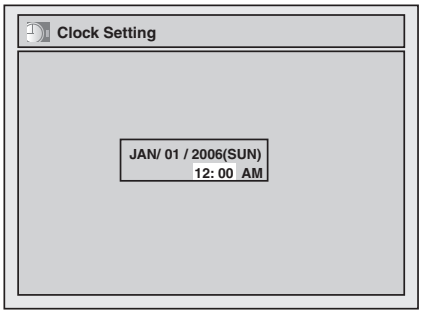
Press [◄ / ►] to move the cursor.



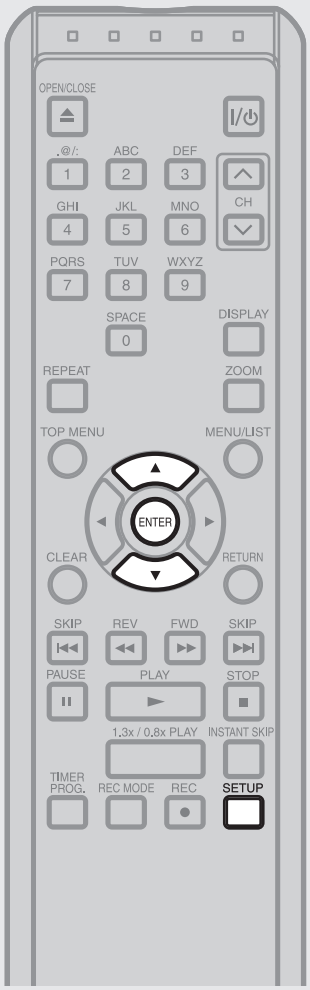


5 Using [▲ / ▼], enter the time (hour / minute). Press [◄ / ►].





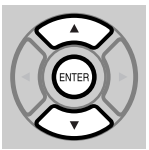
The cursor will move on to AM.

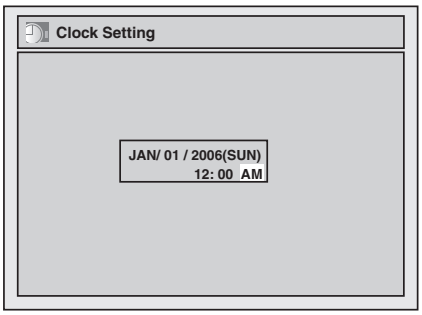


6 Press [▲ / ▼] to select “AM” or “PM”. Press [ENTER].

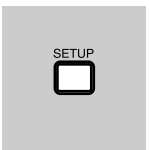
The settings will be activated.

Although seconds are not displayed, they begin counting from zero.





7 Press [SETUP] to exit, if Clock menu appears.



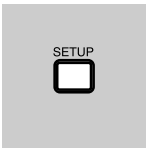
Note

- Your clock setting will be lost if there is a power failure or this unit has been unplugged for more than 30 seconds, set the clock manually.

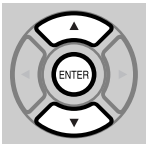
Setting the Daylight Saving Time

When "Daylight Saving Time" is "ON", the unit clock will automatically move forward one hour at 2:00a.m. on the first Sunday in April and move back one hour at 2:00a.m. on the last Sunday in October.
"ON" has been selected as the default.

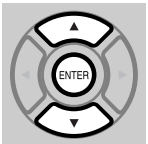
1 **Press [SETUP].**

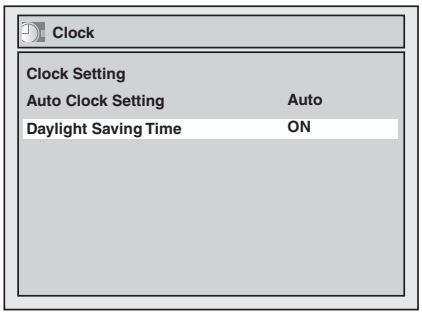


2 **Using [▲ / ▼], select "Clock". Press [ENTER].**
Clock menu will appear.



3 **Using [▲ / ▼], select "Daylight Saving Time". Press [ENTER].**

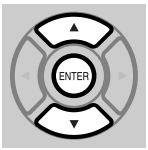


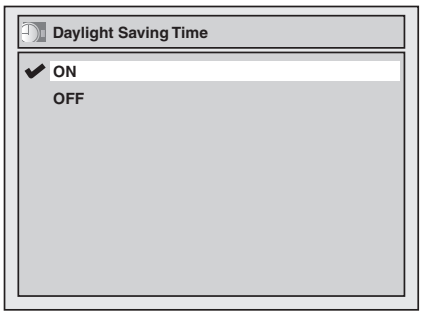


Option window will appear.

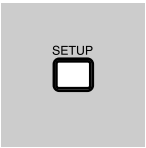
4 Using [▲ / ▼], select “ON” or “OFF”. Press [ENTER].

Choose “ON” when currently observing the daylight saving time.





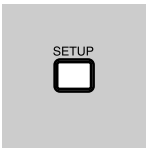
5 Press [SETUP] to exit.



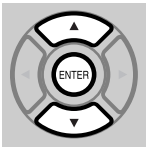
Selecting the TV aspect ratio

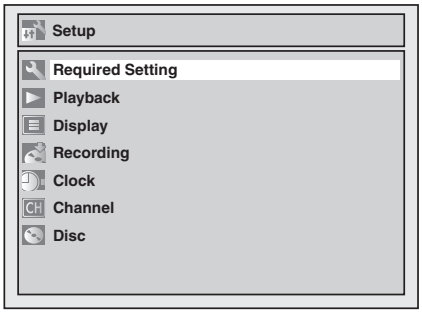
You can select the TV aspect ratio to match the formats of what you are playing with the unit and your TV screen (4:3 standard or 16:9 widescreen TV).
"4:3 Letter Box" has been selected as the default.

1 Press [SETUP].



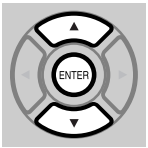
2 Using [▲ / ▼], select "Required Setting". Press [ENTER].

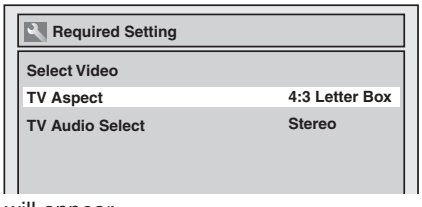




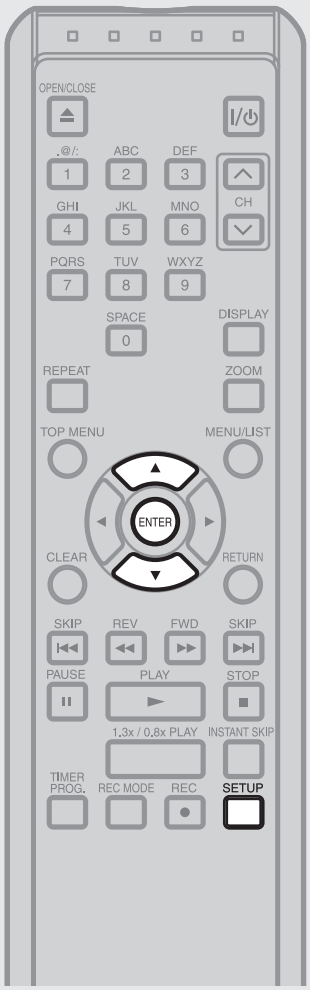
Required Setting menu will appear.

3 Using [▲ / ▼], select "TV Aspect". Press [ENTER].

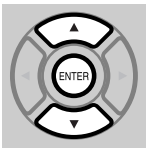


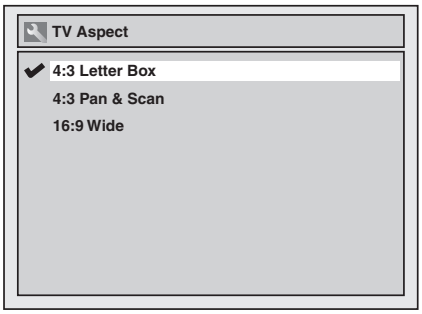


Option window will appear.

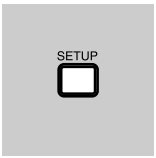


4 Using [▲ / ▼], select a desired format. Press [ENTER].





5 Press [SETUP] to exit.



Note

If you have a standard TV:

Select “4:3 Letter Box”, so that black bars appear on the top and bottom of the screen. Select “4:3 Pan & Scan” for a full height picture with both sides trimmed.

If you have a widescreen TV:

Select “16:9 Wide”.

Symbols in this Section

The following icons show the recordable discs for each function described in this section.

DVD-RW VIDEO : Video mode DVD-RW disc

DVD-RW VR : VR mode DVD-RW disc

DVD-R : DVD-R disc

Most instructions are based on the remote control operation, unless otherwise noted. You can use the buttons on the remote control and those on the front panel of the unit as well when they have the same function.

Recording

Recording variations for many types of programs or situations.

- **Information on DVD recording**
- **Selecting the Recording format**
- **Basic recording**
- **One-touch Timer Recording**
- **Timer Recording**
- **Settings for an external source**
- **Setting disc protection**
- **Finalizing the discs**

Information on DVD recording

Information

This unit can record to DVD-R and DVD-RW discs.
DVD-R discs can only be recorded once, and cannot be erased. DVD-RW discs can be recorded and erased many times.
DVD-R discs can only be recorded in Video mode, while DVD-RW discs can select a recording format between Video mode and VR mode.

Logo	Attributes
DVD-RW	8cm/12cm, single-sided, single layer disc Approx. max. recording time (SEP mode): 600 minutes (4.7GB) (for 12cm) 180 minutes (1.4GB) (for 8cm)
DVD-R	

Notes

- **This recorder cannot record CD-RW or CD-R discs.**
- DVD-RW/R and CD-RW/R discs recorded on a personal computer or a DVD or CD recorder may not play if the disc is damaged or dirty or if there is dirt or condensation on the player's lens.
- If you record a disc using a personal computer, even if it is recorded in a compatible format, there are cases in which it may not play because of the settings of the application software used to create the disc. (Check with the software publisher for more detailed information.)
- Discs recorded in Video mode on this unit cannot record additionally using other DVD recorders.
- A DVD-RW disc formatted with this unit cannot be used in other DVD recorders without any recording using this unit.
- Since the recording is made by the variable bit rate (VBR) method, depending on the picture you are recording, the actual remaining time for recording may be a little shorter than the remaining time displayed on the OSD.

Restrictions on recording

You cannot record copy-protected video using this unit. Copy-protected video includes DVD-Video discs, some satellite broadcast, some pay-per-view stations and some "premium" stations.
If copy-protected material is encountered during a recording, recording will pause or stop automatically and an error message will be displayed on the screen. Video that is "copy-once only" can only be recorded using a DVD-RW disc in VR mode with CPRM (see below).
When recording a TV broadcast or through an external input, you can display copy control information on the screen.

What is "CPRM"?

CPRM is a copy protection system with scramble system regarding the recording of "copy-once" broadcast programs. CPRM stands for Content Protection for Recordable Media.

This unit is CPRM compatible, which means that you can record copy-once broadcast programs, but you cannot make another copy of those recordings. CPRM recordings can only be made on DVD-RW discs formatted in VR mode, and CPRM recordings can only be played on DVD players that are specifically compatible with CPRM.

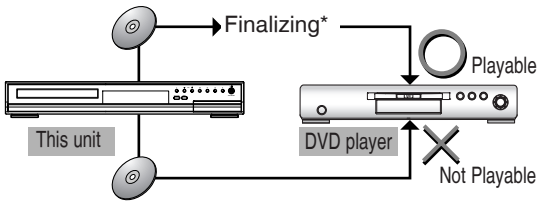
Information on copy control

For recording copy protected contents, refer to the following.

Disc type/Format			Copy-free	Copy-once	Copy-prohibited
DVD-RW	VR mode	ver.1.1,1.2	★	—	—
		ver.1.1,1.2 CPRM compatible	★	★	—
	Video mode	ver.1.1,1.2	★	—	—
		ver.1.1,1.2 CPRM compatible	★	—	—
DVD-R	Video mode	ver.2.0	★	—	—

★ Recordable — Not Recordable

Making discs playable in other DVD players (Finalize)



* You cannot finalize discs recorded in other DVD recorders.

After recording, you must finalize the disc in order to play on other units. (Refer to page 74.)

After finalizing:

- Once DVD-RW/R (Video mode) is finalized, you can no longer record additional content or edit.
- Even if DVD-RW (VR mode) is finalized, you can record additionally or edit the disc.
- When DVD-RW/R (Video mode) is finalized, the Title menu will be created automatically.

To play in other DVD players, finalize discs recorded on this unit.

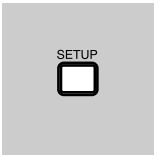
Selecting the Recording format

Choosing the recording format of a brand-new disc

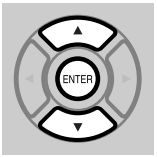
DVD-RW VIDEO | DVD-RW VR

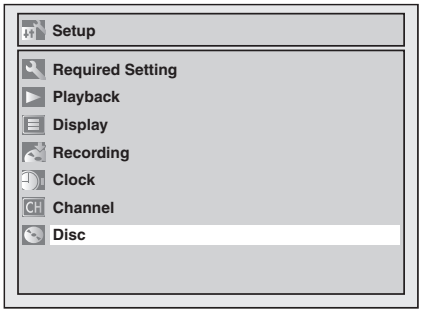
When inserting a brand-new disc, the unit automatically starts to format. You have to select your desired format before inserting the brand-new disc. "Video mode" has been selected as the default.

1 Press [SETUP].



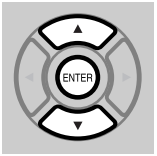
2 Using [▲ / ▼], select "Disc". Press [ENTER].

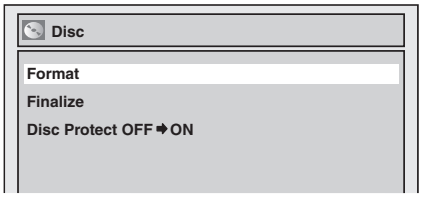




Disc menu will appear.

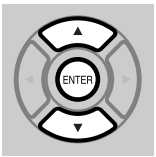
3 Using [▲ / ▼], select "Format". Press [ENTER].

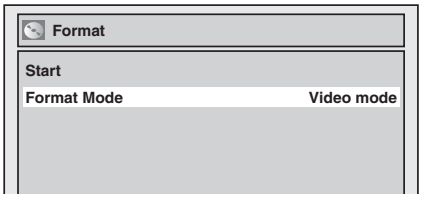




Format menu will appear.

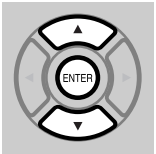
4 Using [▲ / ▼], select “Format Mode”. Press [ENTER].

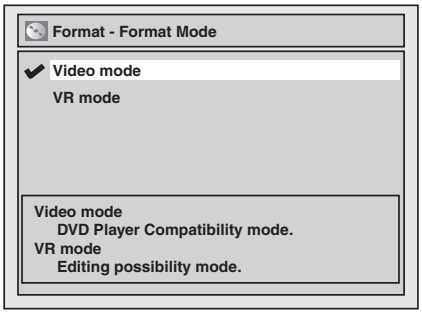




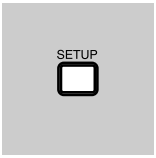
5 Using [▲ / ▼], select “Video mode” or “VR mode”. Press [ENTER].

The recording format will be set.





6 Press [SETUP] to exit.



Notes

- The recording format setting is effective only for DVD-RW discs. You cannot change the recording format on DVD-R discs. DVD-R discs will always be in Video mode.
- **You cannot mix two formats on one DVD-RW disc. When you load a disc once recorded before, the recording format cannot be changed even if you change it in the Setup menu.**
- When inserting a brand-new DVD+R or DVD+RW disc, the error message (“Disc Error”) will appear. This unit is not compatible with a DVD+RW/R disc.
- Playlist will be created automatically when recording on DVD-RW in VR mode.
- A blank chapter may be created depending on the remaining time of the disc.
- When you format, the entire contents on that disc will be erased.

Reformatting a disc

DVD-RW VIDEO | DVD-RW VR

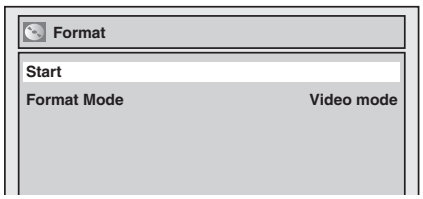
If you are using a DVD-RW disc, you can reformat the disc.

1) Press [SETUP].

2) Using [▲ / ▼], select "Disc". Press [ENTER].
Disc menu will appear.

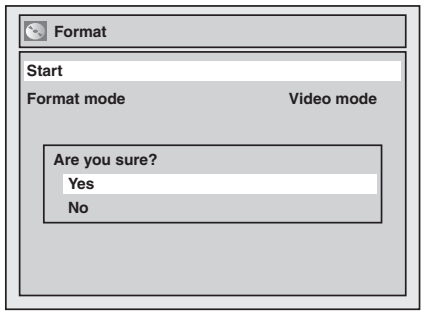
3) Using [▲ / ▼], select "Format". Press [ENTER].
Format menu will appear.

4) Using [▲ / ▼], select "Start". Press [ENTER].



Confirmation window will appear.

5) Using [▲ / ▼], select "Yes". Press [ENTER].
Formatting will start.



6) Formatting is complete.
"100%" will be indicated.

This operation may take a while to be completed.

Notes
- When you reformat the disc, the contents of the disc will be erased.
- If you want to cancel format at step 5, select "No" with [▲ / ▼].

Setting for Auto Chapter

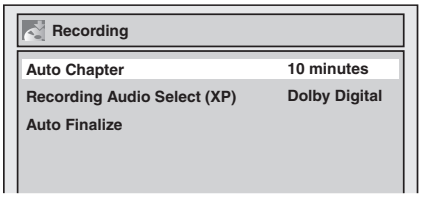
DVD-RW VIDEO | DVD-RW VR | DVD-R

You can set a specified time for chapter marks.
"10 minutes" has been selected as the default.

1) Press [SETUP].

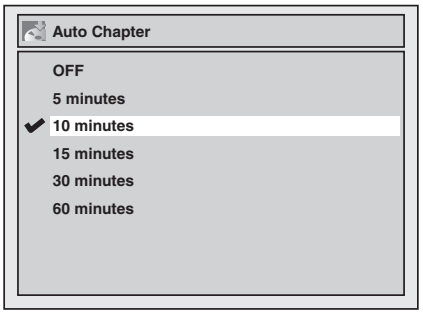
2) Using [▲ / ▼], select "Recording". Press [ENTER].

3) Using [▲ / ▼], select "Auto Chapter". Press [ENTER].



Option window will appear.

4) Using [▲ / ▼], select a desired time. Press [ENTER].



5) Press [SETUP] to exit.

Notes
- The interval for chapter marks may slightly deviate from the one you specified on the Auto chapter screen.
- A blank chapter may be created depending on the remaining time of the disc.

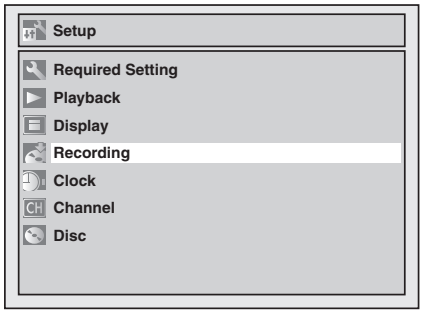
Recording Audio Select (XP)

DVD-RW VIDEO | DVD-RW VR | DVD-R

You can enjoy high quality sound recording. This function works only when the recording mode is set at XP. “Dolby Digital” has been selected as the default.

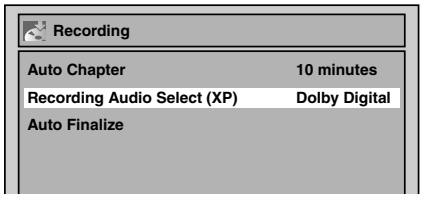
1) Press [SETUP].

2) Using [▲ / ▼], select “Recording”. Press [ENTER].



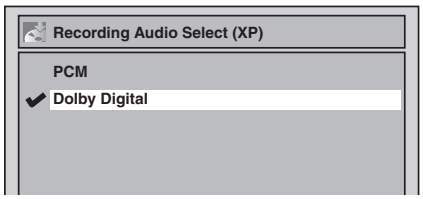
Recording menu will appear.

3) Using [▲ / ▼], select “Recording Audio Select (XP)”. Press [ENTER].



Option window will appear.

4) Using [▲ / ▼], select “PCM”or “Dolby Digital”. Press [ENTER].
Your setting will be activated.



PCM:
Records PCM audio for the best quality sound.
Dolby Digital:
Records Dolby Digital audio for good quality sound.

5) Press [SETUP] to exit.

Notes

- “PCM” stands for Pulse Code Modulation. It changes analog sound to digital sound without compressing audio data.
- When the recording mode is set to other than XP, the unit records “Dolby Digital” audio automatically even if you selected “PCM”.

Basic recording

DVD-RW VIDEO | DVD-RW VR | DVD-R

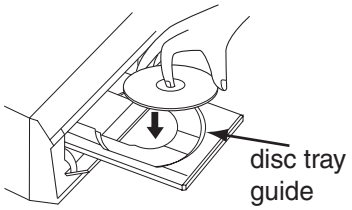
1 Press [I/⏻ ON/STANDBY].

Turn the TV on and be sure to select the input to which the unit is connected.

2 Press [OPEN/CLOSE ⏏] .

The disc tray will open.

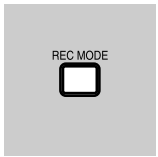
3 Insert your disc with its label facing up. Align the disc to the disc tray guide.



4 Press [OPEN/CLOSE ⏏] to close the disc tray.

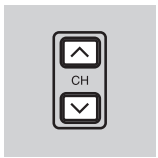
This operation may take a while to be recognized.

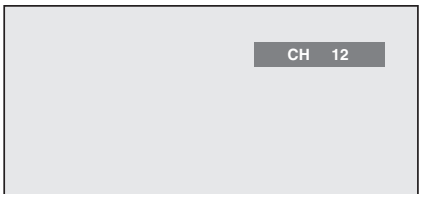
5 Using [REC MODE], select a recording mode.

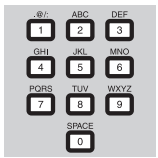


Refer to “Recording Mode” on page 65.

6 Using [CH ∧ / ∨] or the Number buttons, select a desired channel to record.

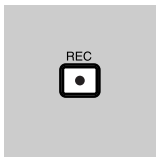


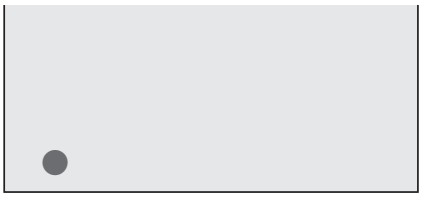




7 Press [REC ●] to start recording.

“●” mark will be displayed for 5 seconds.

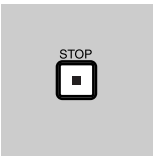




Press [PAUSE ❚❚] to stop recording temporarily.
Press [PAUSE ❚❚] or [REC ●] again to start recording again.

(Continued)

8 Press [STOP ■] to stop recording.



This operation may take a while to be completed.

Notes

- Recording starts immediately and continues until the disc is full or you stop recording.
- When the clock setting has not been made, the space for a date and time of title names in the Original list or Playlist will be blank.
- When you record a TV program which has Stereo and SAP audio on a DVD-RW/R, you have to select the TV channel audio (Stereo or SAP) beforehand. Only the selected channel audio will be recorded. Refer to "Selecting TV stereo or SAP" on page 36 for more details.
- **You cannot mix two formats on one DVD-RW disc. When you load a disc once recorded before, the recording format cannot be changed even if you change it in the Setup menu.**
- You cannot change the recording mode during the REC pause mode.
- You can change a channel during the REC pause mode.

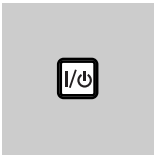
One-touch Timer Recording

DVD-RW VIDEO | DVD-RW VR | DVD-R

This is a simple way to set the recording time in blocks of 30 minutes. Check that the disc you are recording onto has enough space for the time you set.
When the recording finishes the recorder automatically goes into standby.

1 Press [I/⏻ ON/STANDBY] to turn on the unit and load a recordable disc.

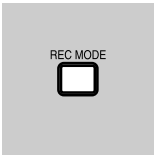
Make sure that the TV input is set on the unit.



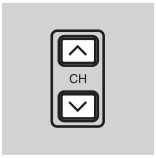
This operation may take a while to be recognized.

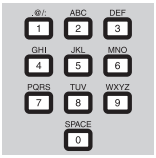
2 Using [REC MODE], select a recording mode.

Refer to “Recording Mode” on page 65.



3 Using [CH ∧/∨] or the Number buttons, select a desired channel to record.

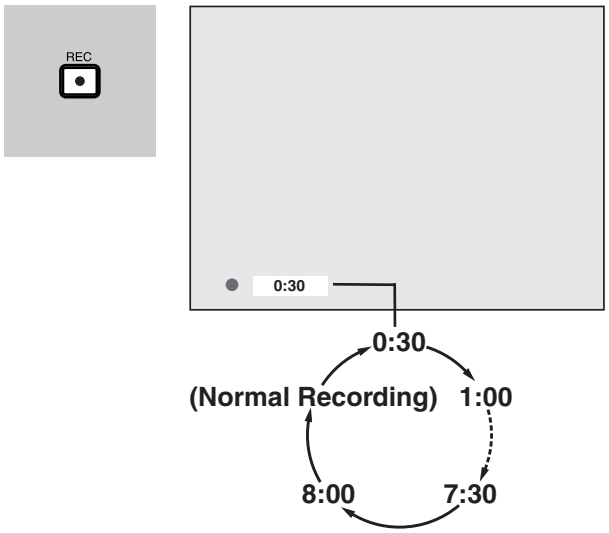




(Continued)

4 Press [REC ●] repeatedly to select desired recording time.

Recording times appear on the TV screen (30 minutes to 8 hours). Recording will start.



When the unit reaches the specified time, it will be turned off automatically.

To change the recording length during the One-touch Timer Recording, press [REC ●] repeatedly until the desired length appear.

To cancel the One-touch Timer Recording within the specified time, press [STOP ■] .

This operation may take a while to be completed.

Notes

- **The remaining recording time will appear on the front panel display during a One-touch Timer Recording. Press [DISPLAY] to see it on the TV screen.**
- You cannot pause a One-touch Timer Recording.
- Unlike a Timer Recording, you can perform the following operations during a One-touch Timer Recording.
  -Turning the power off
  -Using [REC ●] and [STOP ■]
- **The unit will be turned off automatically under the following conditions.**

1)No space remained on the disc
2)When a power failure occurs

Timer Recording

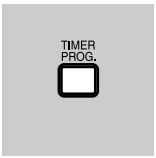
DVD-RW VIDEO | DVD-RW VR | DVD-R

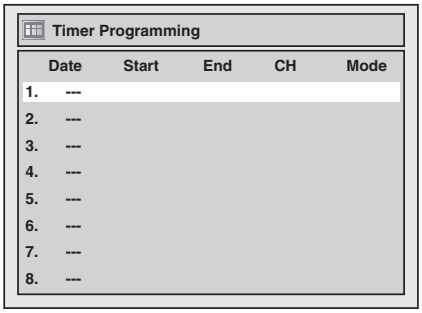
You can program the unit to record up to 8 programs within a month in advance. Daily or weekly program recordings are also available.

- **Be sure to set the clock before setting a timer programming.**
- **Insert a recordable disc.**

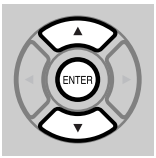
1 Press [TIMER PROG.].

Timer Programming list will appear.



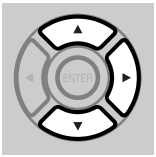


2 Using [▲ / ▼], select a program number. Press [ENTER].



(Continued)

3 Using [▲ / ▼], enter the Date. Press [►].



Timer Programming

	Date	Start	End	CH	Mode
1.	JAN/01	--:--	--:--	L1	
2.	---				
3.	---				
4.	---				
5.	---				
6.	---				
7.	---				
8.	---				

When pressing [▼] at the current date, The Date will change as follows.

<e.g. January 1st>

JAN/01

↓ Daily (Everyday)

↓ MON-SAT (Monday to Saturday)

↓ MON-FRI (Monday to Friday)

↓ SAT (Saturday)

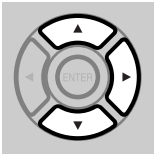
↓ FRI (Friday)

↓ SUN (Sunday)

↓

JAN/31 (one month later minus one day)

4 Using [▲ / ▼], enter the Start and End. Press [►].

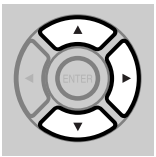


Timer Programming

	Date	Start	End	CH	Mode
1.	JAN/01	12:57AM	--:--	L1	
2.	---				
3.	---				

• 0:00 will be displayed as 12:00 AM.

5 Using [▲ / ▼], select the channel number to record. Press [►].

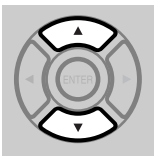


Timer Programming

	Date	Start	End	CH	Mode
1.	JAN/01	12:57AM	1:57AM	CH 8	
2.	---				
3.	---				
4.	---				
5.	---				
6.	---				
7.	---				
8.	---				

To record from external input, select L1 or L2, which is found at the before channel 1.

6 Using [▲ / ▼], select a recording mode.



Timer Programming

	Date	Start	End	CH	Mode
1.	JAN/01	12:57AM	1:57AM	CH 8	Auto
2.	---				
3.	---				
4.	---				
5.	---				
6.	---				
7.	---				
8.	---				

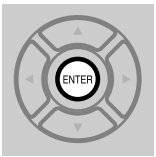
Refer to “Recording Mode” on page 65.

If you choose “Auto”, the unit automatically selects the best recording mode to make the best quality picture according to the remaining disc space.

- This function works only on the 1 program.
- The recording may be cut short, when the available recording space of the disc is too limited.

(Continued)

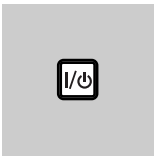
7 Press [ENTER] when information is entered. Your program setting will be stored.



- To set another program, repeat steps 2 to 7.
- To exit, press [TIMER PROG.] or [SETUP].
- When two or more programs are overlapped, "Overlap" and the overlapped program number will appear on the TV screen.

8 Press [I/⏻ ON/STANDBY] to go into the timer standby mode.

⏲ indicator will appear on the front panel display, while this unit waits to make the recording.



- Timer Recording will not work when the power is on.
- When power is on, programs registered for recording in Timer Recording will be automatically cleared after the end time and date have passed.

To stop the Timer Recording in process: Press [STOP ■] on the front panel of the unit. [STOP ■] on the remote control is not effective.

Notes

- **If you have not set the clock yet:**
  A manual clock setting menu will appear instead of the Timer Programming list at step 1. Continue with step 4 in "Manual Clock Setting" on page 41 before setting a timer programming.
- Press [◄ / ►] to move the cursor to the left and the right in the Timer Programming list.
- After step 8, the recording will start immediately before the recording time you set.

■ Recording Mode

You can select a recording mode among 6 options, and the recording time will depend on the recording mode you select as follows.

*** Discs recorded in SLP or SEP on this recorder may not be played back on other DVD recorders or DVD players.**

Disc Size	Recording mode	Recording time	Video/Sound Quality
8cm Disc	XP	18 min	★★★★★★
	SP	36 min	★★★★★
	LP	72 min	★★★★
	EP	108 min	★★★
	SLP	144 min	★★
	SEP	180 min	★
12cm Disc	XP	60 min	★★★★★★
	SP	120 min	★★★★★
	LP	240 min	★★★★
	EP	360 min	★★★
	SLP	480 min	★★
	SEP	600 min	★

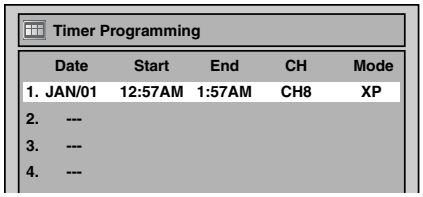
- The recording times listed above are estimates and are for reference purposes only. Actual recording times may vary.
- The audio and video quality of content being recorded may degrade depending on the Recording mode/Recording time chosen.
- Each time [REC MODE] is pressed, recording mode and its allowed recording time will be displayed.

Checking, canceling, or correcting the timer programming information

1) Press [I/⏻ ON/STANDBY].
⏲ indicator disappears from the front panel display.

2) Press [TIMER PROG.].
Timer Programming list will appear.

3) Check the information on the list to be edited.



4) To clear the timer programming:
Using [▲ / ▼], select your desired program.
Press [CLEAR].

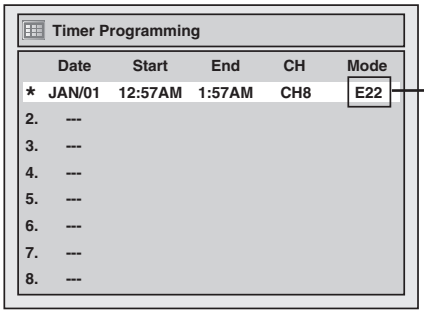
To correct the timer programming:
Using [▲ / ▼], select your desired program. Press [ENTER].
Then, correct the timer programming by using [▲ / ▼ / ◄ / ►].
Press [ENTER] again.

5) Press [TIMER PROG.] to exit.

6) Press [I/⏻ ON/STANDBY] to return to the timer standby mode.

To stop the Timer Recording in process:
Press [STOP ■] on the front panel of the unit.
[STOP ■] on the remote control is not effective.

If the timer program did not complete correctly, the error number appears in the Timer Programming list.



Press [CLEAR] to erase the selected program.

Each error number means:

E1-22 E37-39	Recording error other than below	E35	PCA full
		E36	Already finalized Video format disc
E23-24	Unrecordable disc		
E25-28	Copy prohibited program	E40	Some portion has not been recorded because of program overlapping. Recording did not start at the start time.
E29	Disc protected		
E30	Disc full		
E31-32	Already 99 titles recorded		
E33	Already 999 chapters recorded	E41	Power failed
E34	No space for Control information	E42	No disc when recording

- A program with the error number is grayed and asterisked in the Timer Programming list.
- Once the Timer Programming list with error line(s) is displayed, or after canceling and setting the timer standby mode again, the program line(s) with error will be cleared.
- When the timer programming list with error line(s) is displayed by pressing [TIMER PROG.], pressing [TIMER PROG.] again will clear the timer programming.

Note

- Press [TIMER PROG.] to check the timer programming in progress.
  When the Timer Recording is proceeding, that program will be highlighted in red.

Hints for Timer Recording

- If there is a power failure or this unit has been unplugged for more than 30 seconds, the clock setting and all timer programming will be lost.
- If a disc is not on the tray, the ◷ indicator flashes and Timer Recording cannot be performed. In some cases, the ◷ indicator appears momentarily around the start point as the unit attempts to record. Please insert a recordable disc.
- When all the Timer Recording is completed, the ◷ indicator flashes. To play or eject the recorded disc, press [I/⏻ ON/STANDBY] first, and then press [PLAY ▶] or [OPEN/CLOSE ⏏].
- During the Timer Recording or timer standby (◷ indicator will appear on the front panel display), any operations on the unit will not be available. To make these operations available, cancel the Timer Recording or timer standby first (◷ indicator disappears).
- To cancel the timer standby mode, press [I/⏻ ON/STANDBY].
- When the Start and the End time are the same, the length of the recording will be set for 24 hours. When the disc reaches the end during the recording, the unit turns itself off.
- When the programmed Start and End time are earlier than the current time, the setting will not be accepted and be cleared for redoing.
- If the Start time is earlier and the End time is later than the current time, the recording will start right after you turn the power off.

■ The priority of overlapped settings

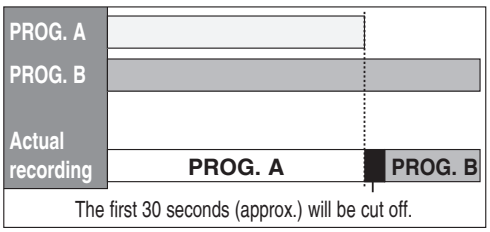
This unit records the programs according to priority if the timer programmings are overlapped. The timer programming set previously has priority.

A Timer Recording of lower priority will be canceled, start from the middle or stop on the way.

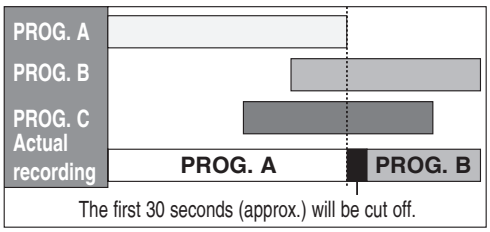
Check the overlapped timer programmings and change the priority if necessary.

■ A programming set previously has priority

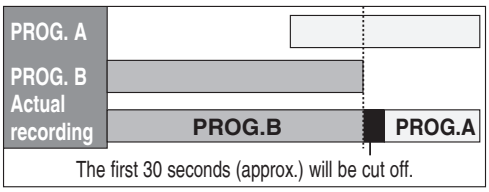
- **When the starting time is same:**
  A program set previously (PROG. A) has priority.



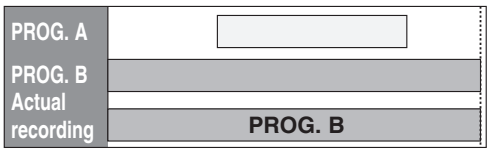
- **When some programming have been made at the end time of the programming currently being recorded:**
  A program set previously (PROG. B) has priority.



- **When the recording time is partially overlapped:**
  PROG. A will start after PROG. B is complete to be recorded.



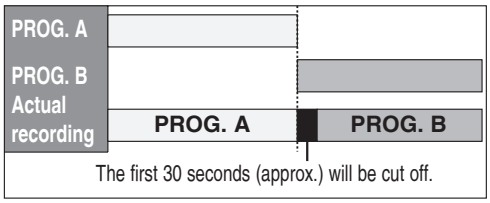
- **When the recording time is entirely overlapped:**
  PROG.A will be recorded.



■ Notes for DVD recording

- When the recording time of two programs are overlapped, or the End time of a program and the Start time of another is the same, the first 30 seconds (approx.) of the subsequent program will be cut off.
- If the cut-off portion comes up to one minute or more, this program will be displayed with error number E40 in the timer programming list.

- **When the End time of the programming currently being recorded and the Start time of the subsequent program are same:**
  the beginning of the PROG. B may be cut off.

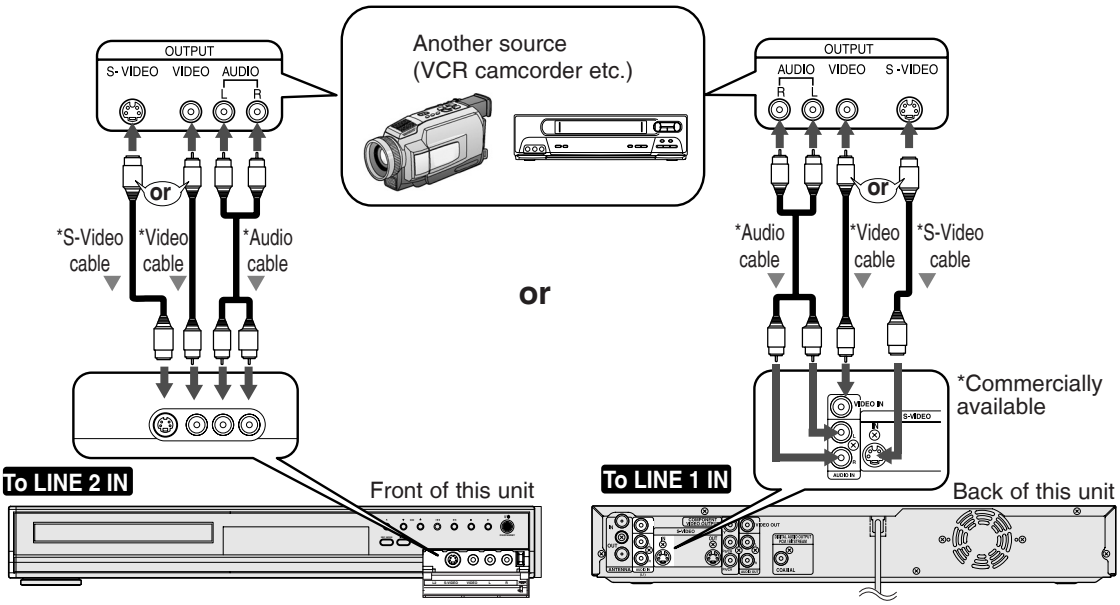


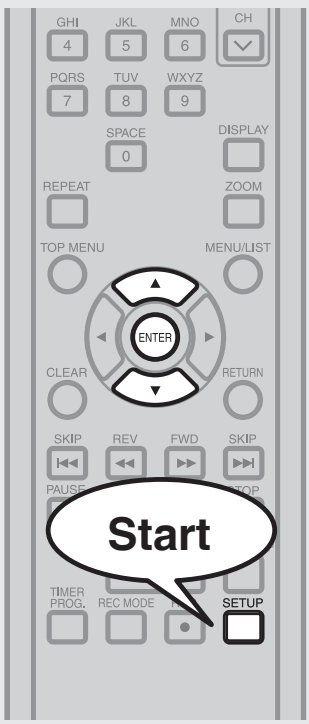
Settings for an external source

Connection to an external source

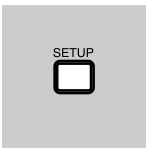
DVD-RW VIDEO | DVD-RW VR | DVD-R

Connect the external source properly to the unit by using input jacks either LINE2 (Front) or LINE1 (Rear).
When connecting an external equipment with monaural output to this unit, use AUDIO L jack of LINE2 (Front).
Use S-Video or Video cable and an Audio cable (commercially available) for this connection.

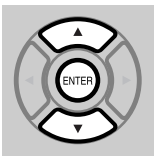




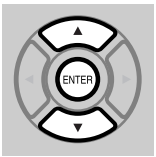
1 **Press [SETUP].**

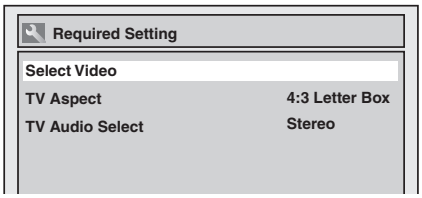


2 **Using [▲ / ▼], select “Required Setting”. Press [ENTER].**

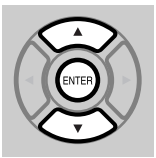


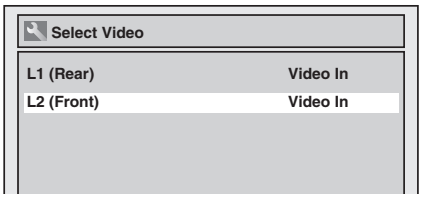
3 Using [▲ / ▼], select “Select Video”. Press [ENTER].





4 Using [▲ / ▼], select “L2 (Front)” or “L1 (Rear)”. Press [ENTER].

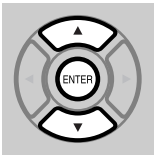


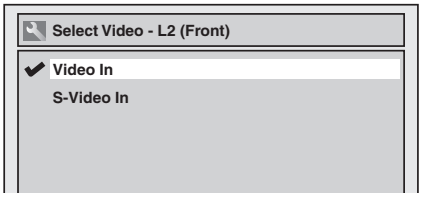


5 Using [▲ / ▼], select the input jack type to connect. Press [ENTER].

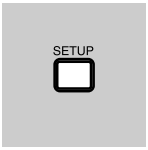
If you want to use S-VIDEO input jack, select “S-Video In”.
If you want to use VIDEO input (Composite) jack, select “Video In”.

<e.g. L2 (Front)>



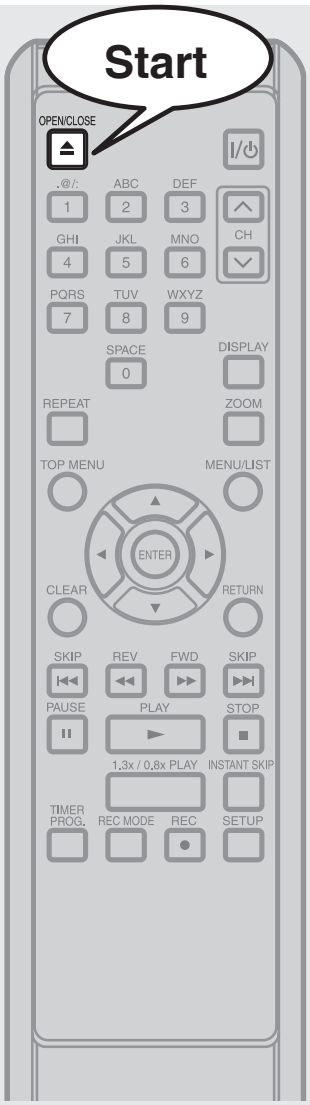


6 Press [SETUP] to exit.



Recording from an external source

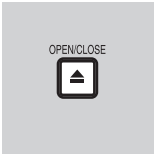
DVD-RW VIDEO | DVD-RW VR | DVD-R



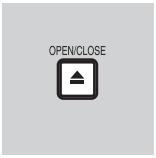
Before recording from an external source, see the instructions for the connection on page 68.

1 **Turn the TV and this unit on, and be sure to select the input of the TV to which the unit is connected.**

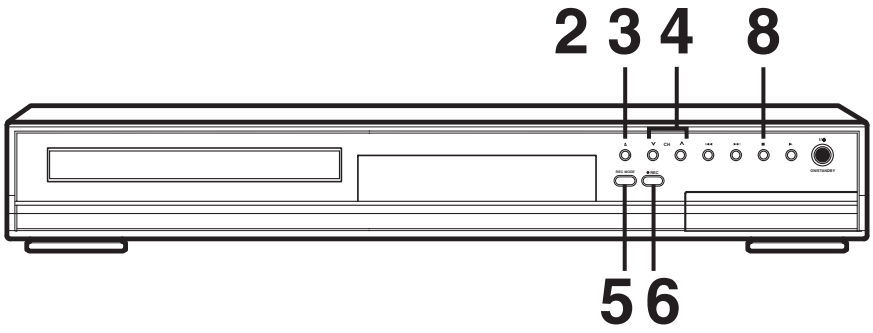
2 **Press [OPEN/CLOSE ⏏] to open the disc tray. Place the disc to record properly.**



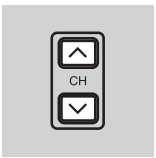
3 **Press [OPEN/CLOSE ⏏] to close the disc tray.**

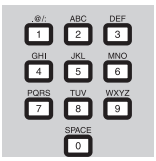


This operation may take a while to be recognized.



4 Using [CH∨/∧] or the Number buttons, select the input of the unit which the external equipment is connected. (L2 or L1)

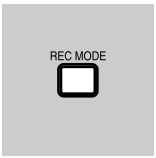




- To use the input jacks on the back of this unit, select “L1” position by pressing [0], [0], [1] with the Number buttons on the remote control or the [CH∨/∧].
- To use the input jacks on the front of this unit, select “L2” position by pressing [0], [0], [2] with the Number buttons on the remote control or the [CH∨/∧].

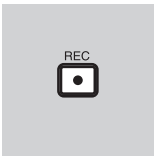
5 Select a recording mode pressing [REC MODE].

Refer to “Recording Mode” on page 65.



XP → SP → LP
↑ ↓
SEP ← SLP ← EP

6 Press [REC ●] on the unit to start recording.



7 Press “Play” on the external source to record from.

8 Press [STOP ■] on the front panel of the unit to stop recording.

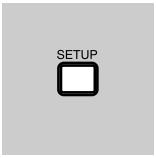
This operation may take a while to be completed.

Setting disc protection

DVD-RW VR

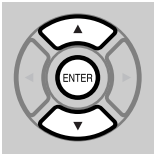
To prevent accidental recording, editing or erasing the titles, you can protect them from the setup menu.

1 Press [SETUP].

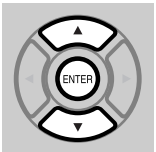


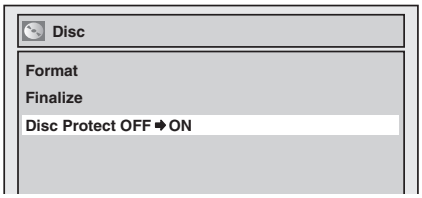
2 Using [▲ / ▼], select “Disc”. Press [ENTER].

Disc menu will appear.



3 Using [▲ / ▼], select “Disc Protect OFF ➡ ON”. Press [ENTER].

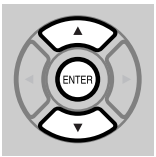


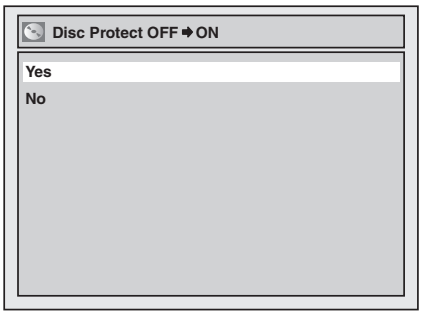


Confirmation window will appear.

4 Using [▲ / ▼], select “Yes”. Press [ENTER].

A disc will be protected.



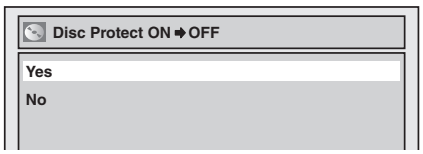


Notes

- The Disc Protect setting is available only when a disc with VR mode is inserted.

To cancel the disc protect:

- When you insert a disc protected with this unit, “Disc Protect ON ➡ OFF” will appear instead of “OFF ➡ ON”.
- To release the protection of the disc, select “Disc Protect ON ➡ OFF” at step 3, then select “Yes”.

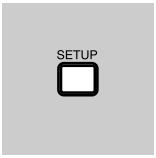


Finalizing the discs

DVD-RW VIDEO | DVD-RW VR | DVD-R

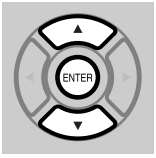
You will need to finalize discs recorded in this unit to play in other DVD players. (Refer to page 51.)
Finalizing may take several minutes up to an hour. (A disc recorded in Video mode can take up to 15 minutes. A disc recorded in VR mode can take up to 60 minutes.)
Since the process of the finalization fills empty space of the disc, a shorter recording period on the disc will require a longer time period for finalization. Do not unplug the power cord during finalization.

1 Press [SETUP].

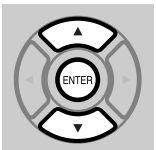


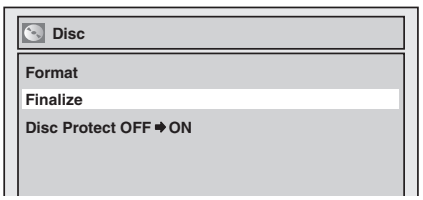
2 Using [▲ / ▼], select “Disc”. Press [ENTER].

Disc menu will appear.



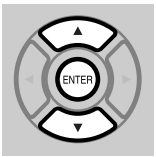
3 Using [▲ / ▼], select “Finalize”. Press [ENTER].

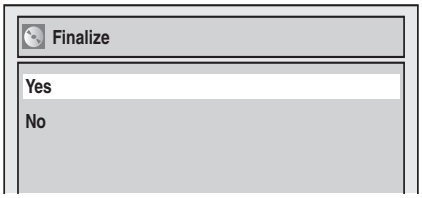




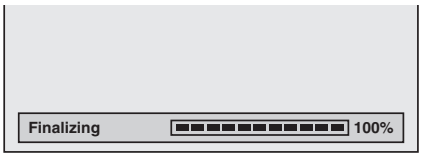
Confirmation window will appear.

4 Using [▲ / ▼], select “Yes”. Press [ENTER].





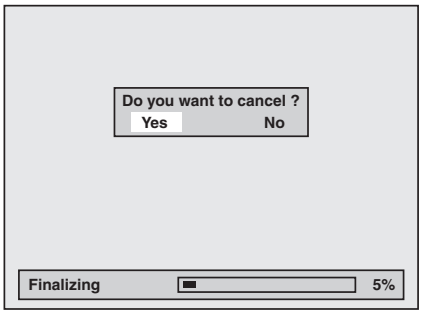
5 Finalizing is completed.



To cancel finalizing...

(DVD-RW only)

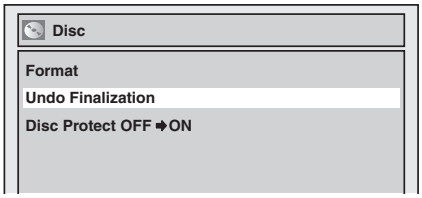
- To cancel finalizing at step 4, press [STOP ■], select “Yes” with [◄ / ►], then press [ENTER]. Finalizing is cancelled and the unit will be in stop mode.
- If ⃠ appears when pressing [STOP ■], you cannot cancel finalizing because the finalizing has been in certain progress.
- When selecting “No” and press [ENTER] or [RETURN] , finalizing will be continued.
- You cannot cancel finalizing the DVD-R disc once it has started.



This operation may take a while to be completed.

Notes

- Finalizing discs in Video mode automatically creates title menus.
- Once you have finalized a disc recorded in Video mode, you cannot edit or record anything else on that disc.
  Discs recorded in VR mode can still be recorded and edited on this recorder even after finalized.
- When you insert a DVD-RW disc finalized with this unit, “Undo Finalization” will appear instead of “Finalize”.
  To unfinalize the disc, select “Undo Finalization” at step 3.
- DO NOT power off during finalizing, this will result in malfunction.

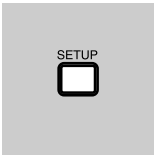


Auto finalize

DVD-RW VIDEO | DVD-R

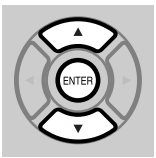
You can finalize discs automatically by using Auto Finalize function. You can use this function to finalize discs after finishing all Timer Recordings and at the end of the disc space.

1 **Press [SETUP].**

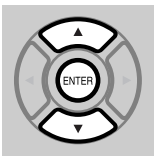


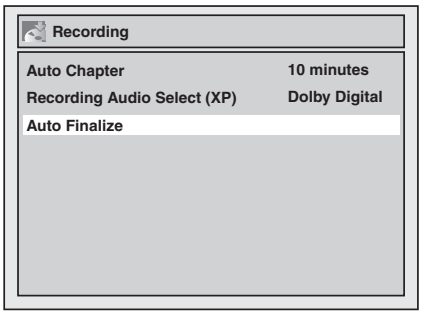
2 **Using [▲ / ▼], select "Recording". Press [ENTER].**

Recording menu will appear.



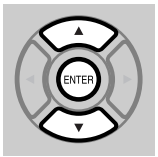
3 **Using [▲ / ▼], select "Auto Finalize". Press [ENTER].**

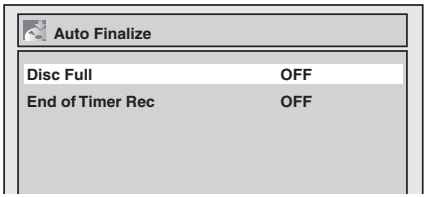




Auto Finalize menu will appear.

4 Using [▲ / ▼], select “Disc Full” or “End of Timer Rec”. Press [ENTER].

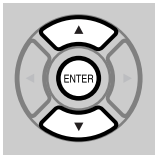




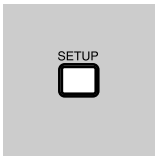
Option window will appear.

5 Using [▲ / ▼], select “ON”. Press [ENTER].

Your setting will be activated.



6 Press [SETUP] to exit.



Note

• Auto Finalize is not applicable to VR format discs.

Symbols in this Section

The following icons show the playable discs for each function described on this section.

DVD-RW VIDEO : Video mode DVD-RW disc

DVD-RW VR : VR mode DVD-RW disc

DVD-VIDEO : DVD-Video disc

DVD-R : DVD-R disc

CD : Audio CD

MP3 : CD-R/RW disc with MP3 files

WMA : CD-R/RW disc with WMA files

JPEG : CD-R/RW disc with JPEG files

VCD : Video CD

VCD PBC OFF : Video CD without PBC

Most instructions are based on remote control operation, unless otherwise noted. You can use the buttons on the remote control as well as those on the main unit when they have the same function.

Playback

Play your favorite contents.

- **Basic playback**
- **Further playback**
- **Special playback**
- **Selecting the format of audio and video**

Basic playback

Playback

DVD-RW VR | DVD-RW VIDEO | DVD-R

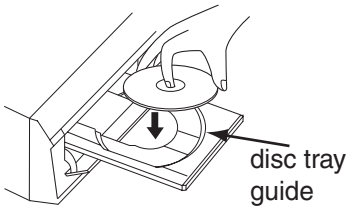
1 **Press [I/⏻ ON/STANDBY].**

Turn the TV on and be sure to select the input to which the unit is connected.

2 **Press [OPEN/CLOSE ⏏].**

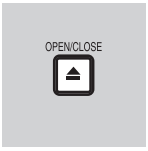
The disc tray will open.

3 **Insert your disc with its label facing up. Align the disc to the disc tray guide.**



4 **Press [OPEN/CLOSE ⏏] to close the disc tray.**

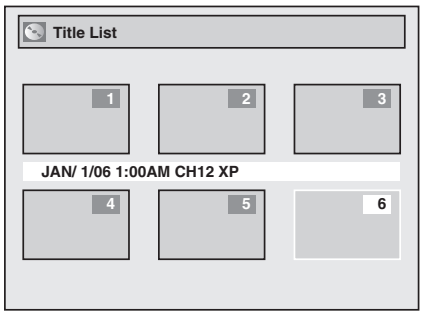
This operation may take a while to be recognized.



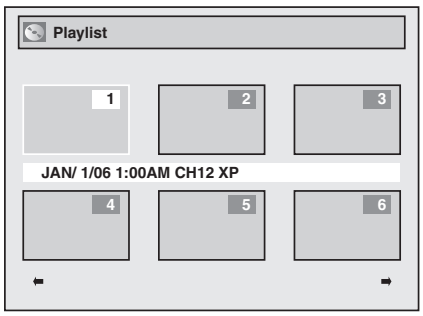
5 Press [TOP MENU] to display the title list.

You can change “Original” or “Playlist” of VR mode using [MENU / LIST].

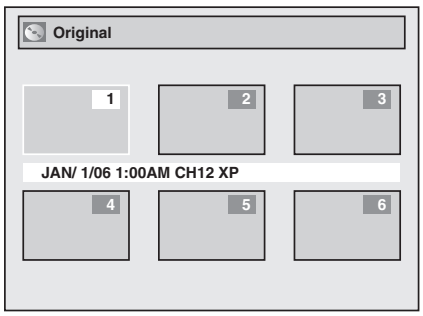
<Video mode>



<VR mode>



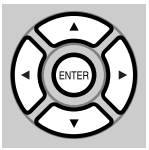
[MENU / LIST]



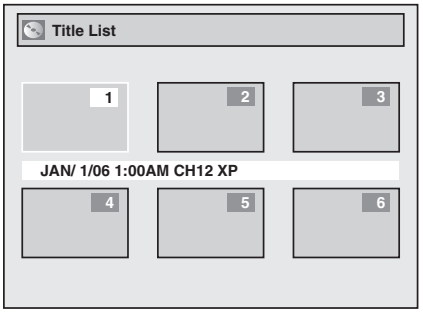
Press [TOP MENU] to resume play.
To exit the title list, press [STOP ■] or [RETURN].

(Continued)

6 Using [▲ / ▼/◄ / ►], select a desired title. Press [ENTER].



<Video mode>



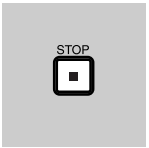
Pop-up window will appear.

7 Using [▲ / ▼], select "Play". Press [ENTER].

Playback will start.

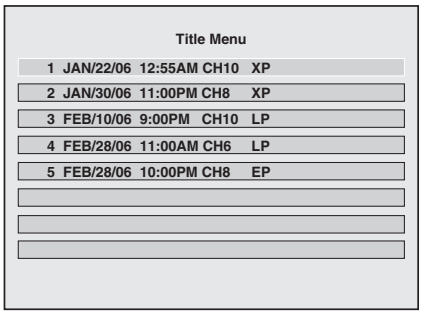
8 Press [STOP ■] to stop playback.

To eject the disc, press [OPEN/CLOSE ⏏] to open the disc tray, then remove the disc before turning the unit off.



Notes

- For DVD-R (Video mode) and DVD-RW (Video mode) discs which are already finalized, a title menu will be displayed instead of thumbnails.
- You can resume play from where you stopped playing the disc. (Resume play) Refer to page 88 for details about resume play.
- Some discs may start playback automatically.
- You can also start playback by pressing [PLAY ►] instead of [ENTER] at step 6.



Playing back a DVD-VIDEO / Video CD / CD

DVD-VIDEO | CD | VCD

1 **Press [I/⏻ ON/STANDBY].**

Turn the TV on and be sure to select the input to which the unit is connected.

2 **Press [OPEN/CLOSE ⏏] to open the disc tray.**

The disc tray will open.

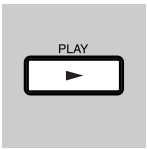
3 **Insert your disc with its label facing up. Align the disc to the disc tray guide.**

4 **Press [PLAY ►] to start playback.**

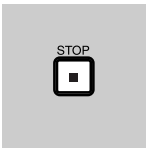
Playback will start.

If you are playing a DVD-Video disc or a Video CD, menu may appear.

Refer to page 86 for details about the Disc menu.



5 **Press [STOP ■] to stop playback.**



Note

• Some discs may start playback automatically.

Playing MP3, WMA, JPEG disc

MP3 | WMA | JPEG

1 In stop mode, press [TOP MENU] to call up the menu.

•To exit the menu, press [TOP MENU] again.

2 Using [▲ / ▼], to select a desired folder (group) or track. Press [ENTER].

When selecting track:

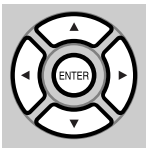
Playback will start.

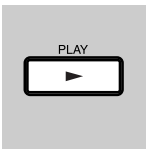
When selecting the folder:

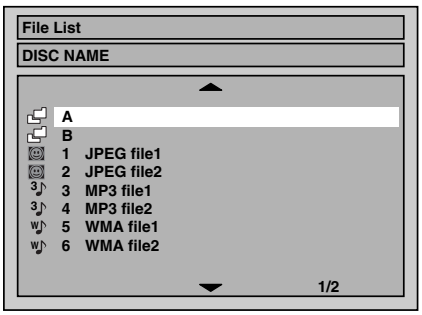
The files in the folder will appear.

Press [▲ / ▼] to select the track or the folder you want, then press [ENTER].

- Press [PLAY ►], [ENTER] or [►] to move to the lower hierarchies.
- Press [◄] or [RETURN] to the previous hierarchy.







Hints for MP3, WMA and JPEG files:

- Folders are known as Groups, files are known as Tracks.
- Folders are accompanied by icon.
- MP3 files are accompanied by icon.
- WMA files are accompanied by icon.
- JPEG files are accompanied by icon.
  Reproduction will start from the selected track and go to the next one in turn.
- The system can recognize up to 255 groups (or folders) and up to 999 tracks.
- The name of group and track can be displayed up to 29 characters. Unrecognizable characters will be replaced with asterisks.
- If there are no files in the folder, “No Files” will be displayed.
- Call Display Menu by pressing [DISPLAY] to check track number and time.
- When the Display Menu is on, you can check the artist name tag and title tag by pressing [DISPLAY] during the WMA file playback or resume stop.

This unit recommends the files recorded under the following circumstances:

<Applicable MP3 / WMA files>

- Sampling frequency: 44.1kHz or 48kHz.
- Constant bit rate: 112kbps - 320kbps (MP3), 48kbps - 192kbps (WMA).

<Applicable JPEG files>

- Upper limit: 6,300 x 5,100 dots.
- Lower limit: 32 x 32 dots.
- File size of image maximum: 12MB.

Notes

- The audio source of MP3 files cannot be recorded as digital sound by an MD or DAT deck.
- Files whose extension is other than “.mp3(MP3)” “.wma(WMA)” or “.jpg / .jpeg(JPEG)” will not be listed in the menu.
- Some unplayable folders or tracks may be listed in the menu due to the recording status.
- High-resolution JPEG files take longer to be displayed.

This product requires discs/recordings to meet certain technical standards in order to achieve optimal playback quality. Pre-recorded DVDs are automatically set to these standards. There are many different types of recordable disc formats (including CD-R containing MP3/WMA files). Because this area of technology is still evolving, Toshiba cannot guarantee that all recordable discs will produce optimal playback quality. The technical criteria set forth in this owner’s manual are meant only as a guide.

You must obtain any required permission from copyright owners to download or use copyrighted content. Toshiba cannot and does not grant such permission.

Playing discs using the Disc menu

DVD-VIDEO

A DVD disc contains a Disc menu that describes the contents or allows you to customize the playback. For example, the menu may offer choices for subtitle languages, special features, or chapter selection.
Sometimes these are displayed automatically when you start playback, otherwise only appear when you press [MENU / LIST].

1) Press [MENU / LIST].
The Disc menu will appear.
If the feature is not available, ⃠ may appear on the TV screen.

2) Using [▲ / ▼/ ◄ / ►], select an item. Press [ENTER] to confirm.
Continue this step to set up all the features you want or to start playing the disc from the menu.
MENU / LIST button:
Displays a DVD Disc menu which varies with the disc and may be the same as the 'Title menu'.
Direction [▲ / ▼ / ◄ / ►] buttons:
Moves the cursor around screen.
ENTER button:
Selects the currently highlighted menu option.
Number buttons:
Selects a numbered menu option (some discs only). (Press [ENTER] after inputting the desired number.)

3) Press [MENU / LIST] to exit the Disc menu.

Note
- Menus vary among discs. Refer to the information accompanying the disc for details.

Playing discs using the Title menu

DVD-VIDEO

Some DVDs have a Title menu, which lists the titles available on them. It helps you to start play at a specific title.

1) Press [TOP / MENU].
The Title menu will appear.
If the feature is not available, ⃠ may appear on the TV screen.

2) Using [▲ / ▼ / ◄ / ►], select a title to play. Press [ENTER].
Play will begin at the title you selected.
TOP MENU button:
Displays the 'Title menu' of a DVD disc which varies with the disc.
Direction [▲ / ▼ / ◄ / ►] buttons:
Moves the cursor around screen.
ENTER button:
Selects the currently highlighted menu option.
Number buttons:
Selects a numbered menu option (some discs only). (Press [ENTER] after inputting the desired number.)

3) Press [TOP MENU] to exit the Title menu.

Notes
- [TOP MENU] will not always be active with all DVDs.
- Menus vary among discs. Refer to the information accompanying the disc for details.

Pause

DVD-VIDEO | DVD-RW VIDEO | DVD-RW VR | DVD-R
CD | MP3 | WMA | JPEG | VCD

1) During playback, press [PAUSE ❚❚].
Play will pause and sound will be muted.

2) Press [PLAY ►] to resume play.

Step by step playback

DVD-VIDEO | DVD-RW VIDEO | DVD-RW VR | DVD-R
VCD

1) During playback, press [PAUSE ❚❚].
Play will pause and sound will be muted.

2) Press [SKIP ►►I] repeatedly.
The play will advance one frame (or step) at a time when you press [SKIP ►►I] with the sound muted.

To play step by step backward:
Press [SKIP I◄◄] repeatedly.
Every time you press the button, the play will go backward by one frame.
- Press and hold [SKIP I◄◄ / ►►I] to reverse/ forward slow.

3) Press [PLAY ►] to resume play.

Note
- Only step by step forward is available for playing back Video CDs.

PBC function for Video CDs

VCD

This unit conforms to ver.1.1 and ver.2.0 of the Video CD standard playback control (PBC) function. This enables you to play back interactive software using menu screens. Refer to the information accompanying the Video CD.

Ver.1.1 (without PBC function): You can still enjoy playback of pictures and music from the CD.

Ver.2.0 (with PBC function): "PBC ON" will appear on the screen and display when playing back a Video CD with the PBC function.

Notes

- When playing back Video CDs with the PBC function, "Pbc" is displayed instead of the playing back time and current track indications on the front panel display.
- Some operations cannot be performed unless the function is cancelled either automatically or intentionally by you.
- Operations that are not available when the PBC function is set to "ON" are indicated by the following symbol in this manual:

VCD PBC OFF

Playing back a Video CD using the title menu

VCD

1) When playing back a Video CD with the PBC function, the title menu will appear automatically.

2) Press the Number buttons to select the desired title.

Playback will start at the selected title.

3) Press [RETURN] to go back to the title menu.

Note

- While the On-Screen Display appears, you cannot perform steps 2 and 3.

Cancelling and Recalling the PBC function

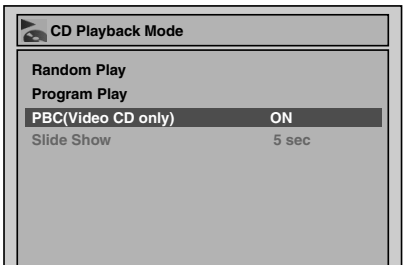
VCD

Insert a Video CD.

1) In stop mode, press [SETUP].

2) Select "CD Playback Mode" using [▲ / ▼], then press [ENTER].

3) Select "PBC (Video CD only)" using [▲ / ▼], then press [ENTER].



4) Select "OFF" using [▲ / ▼], then press [ENTER].

5) Press [SETUP] to exit.

To recall the PBC function, select "ON" in step 4 above.

Note

- The default setting of "PBC (Video CD only)" is "ON".

Further playback

Resume Play

DVD-VIDEO | DVD-RW VIDEO | DVD-RW VR | DVD-R
CD | MP3 | WMA | JPEG | VCD PBC OFF

You can resume play from where you stopped playing the disc last.

1) During playback, press [STOP ■].
The resume message will appear.

2) Press [PLAY ►].
In a few seconds, play will resume from the point at which it stopped last. You can resume play at the same point even if you turn off the unit.

To cancel the resume play and start playing the disc from the beginning, press [STOP ■] the second time while the play is stopped.

Note
- For MP3, WMA and JPEG files, playback will resume from the beginning of the track at which playback was stopped.
- For Video CDs, if you turn PBC on using the setting menu, the resume function is cancelled.

Rapid Play

DVD-VIDEO | DVD-RW VIDEO | DVD-RW VR | DVD-R

Rapid Play function is available only during playback. Available only on discs recorded in the Dolby Digital format, Rapid Play plays back in a slightly faster/slower speed while keeping the sound quality just as normal playback.

1) During playback, press [1.3x/0.8x PLAY]
- ►♪ : Press [1.3x/0.8x PLAY] once during playback. Plays back approximately at 0.8 times of normal playback.
- ►♪♪ : Press [1.3x/0.8x PLAY] twice during playback. Plays back approximately at 1.3 times of normal playback.
- ► : Press [1.3x/0.8x PLAY] three times to play back in normal speed. No effects.

2) Press [PLAY ►] to continue the normal playback.

Notes
- Audio (language) setting cannot be changed while using this mode.
- This feature may not work at some point in a disc.
- Audio is PCM during Rapid play mode.

Skipping TV commercials during play

DVD-VIDEO | DVD-RW VIDEO | DVD-RW VR | DVD-R

You can skip TV commercials by pressing [INSTANT SKIP], so you can enjoy the recorded programs without interrupting.

1) During playback, press [INSTANT SKIP].
Normal play will start at 30 seconds ahead from the point you press [INSTANT SKIP].

Every time you press [INSTANT SKIP], the searching point will be extended by 30 seconds ahead. You can press up to 6 times (180 seconds).

e.g. Press [INSTANT SKIP] once.

(forwarding 30 seconds)

Playback will restart automatically.

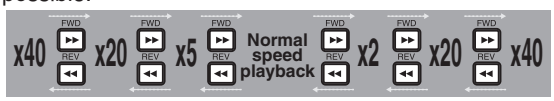
Fast forward / Fast reverse

DVD-VIDEO | DVD-RW VIDEO | DVD-RW VR | DVD-R | CD | MP3 | WMA | VCD

1) During playback, press [FWD ▶▶] or [REV ◀◀].

Every time you press [FWD ▶▶] or [REV ◀◀], approximate speed will be changed as follows.

Fast forward or fast reverse playback across titles (for DVD discs) or tracks (for WMA and MP3) is not possible.



- For Audio CDs, approximate speed is fixed at x8 with sound.
- For MP3 and WMA files, approximate speed is fixed at x8 with sound.
- For Video CDs, approximate forward / reverse speeds are x2, x8 and x16.

To return to the normal play, press [PLAY ▶].

Note

- Forward/reverse speed will be indicated with icons as follows.

  Forward (Approx. Speed)

  x2: ▶▶

  x20: ▶▶▶

  x40: ▶▶▶▶

  Reverse (Approx. Speed)

  x5: ◀

  x20: ◀◀

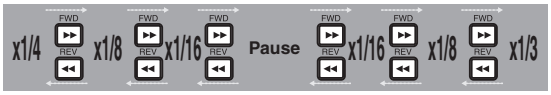
  x40: ◀◀◀

Slow forward / Slow reverse

DVD-VIDEO | DVD-RW VIDEO | DVD-RW VR | DVD-R | VCD

1) During playback, press [PAUSE ❚❚]. Then press [FWD ▶▶] or [REV ◀◀].

Every time you press [FWD ▶▶] or [REV ◀◀], approximate speed will be changed as follows. (The sound will remain muted.)



To return to the normal play, press [PLAY ▶].

Note

- Slow forward/slow reverse speed will be indicated with icons as follows.

  Forward (Approx. Speed)

  x1/16: ▮▶

  x1/8: ▮▶▶

  x1/3: ▮▶▶▶

  Reverse (Approx. Speed)

  x1/16: ▮◀

  x1/8: ▮◀◀

  x1/4: ▮◀◀◀

- Only slow forward is available for playing back Video CDs.

Special playback

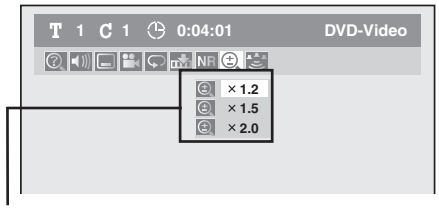
Zoom

DVD-VIDEO | DVD-RW VIDEO | DVD-RW VR | DVD-R | JPEG | VCD

1) During playback, press [ZOOM].
Zoom menu will appear.

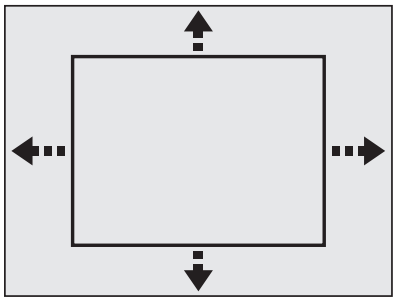
2) Using [▲ / ▼], select a desired zoom factor to zoom. Press [ENTER].

<eg. DVD-Video>



There are four options
(x1.0, x1.2, x1.5 and x2.0), these are displayed excluding the current zoom rate.
The zoom area will be displayed.

3) Using [▲ / ▼ / ◄ / ►], select a desired zoom position. Press [ENTER].
The zoom play will start.



Notes

- When selecting a smaller factor than the current one, the zoom area will not be displayed.
- To exit the zoom menu, press [ZOOM] again at step 1.
- To cancel the zoom function, select “x1.0” using [▲ / ▼], then press [ENTER].

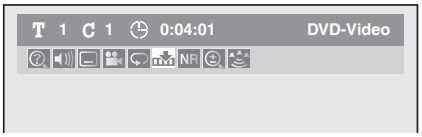
Marker Setup

DVD-VIDEO | DVD-RW VIDEO | DVD-RW VR | DVD-R | CD | VCD PBC OFF

This feature allows you to assign a specific point on a disc to be called back later.

1) During playback, press [DISPLAY].
The Display menu will appear.

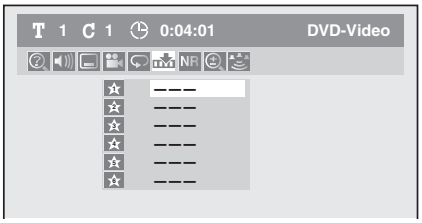
2) Using [◄ / ►], select . Press [ENTER].



Marker Setup menu will appear.

3) Using [▲ / ▼], select a desired marker number. When it reaches the desired point, press [ENTER].

<eg. DVD-Video>



The title (track) number and the time will be displayed.

4) To return to the marker later:
Using [▲ / ▼], select the desired marker number. Press [ENTER].

Notes

- To clear a marker, select the marker number to be cleared, then press [CLEAR].
- All markers will be erased when you operate these operations listed below.

– Opening the disc tray
– Turning off the power
– Recording to a recordable disc
– Changing the mode between Original and Playlist (VR mode)

- You can mark up to 6 points.

Searching by Title, Chapter or Track

DVD-VIDEO | DVD-RW VIDEO | DVD-RW VR | DVD-R | CD | WMA | JPEG | MP3 | VCD PBC OFF

Using [SKIP ⏮◀◀ / ▶▶⏭]

1) During playback, press [SKIP ▶▶⏭] to skip the current title, chapter or track and move to the next.

The title, chapter or track will move forward by one at a time.

To go back to the beginning of the current title, chapter or track, press [SKIP ⏮◀◀] midway.
Press it repeatedly to go to the previous title, chapter or track. It will move backward one at a time.

Notes

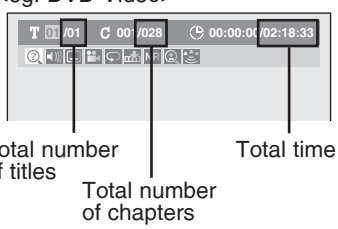
- If there is no chapter in one title, the current title will be skipped.
- For Audio CDs, MP3, WMA or JPEG files, track search is not available for programmed or random playback.

Using [DISPLAY]

1) During playback, press [DISPLAY].

The Display menu will appear.

<eg. DVD-Video>



2) Using [◀ / ▶], select . Press [ENTER].

The number next to T will be highlighted.

Title/Track:
Using [▲ / ▼] or the Number buttons, enter a desired title/track number to search. Press [ENTER].

Title/track search will start.

Chapter:

Press [▶] to move to the number next to C for chapter.
Using [▲ / ▼] or the Number buttons, enter a desired chapter number to search. Press [ENTER].

Chapter search will start.

Note

- In search mode display, total numbers of each search contents (title/chapter/time) are shown as a denominator.
- For Audio CDs, MP3, WMA or JPEG files, track search is not available for programmed or random playback.
- For Video CDs, you can perform the track search function in stop mode without turning PBC off manually.

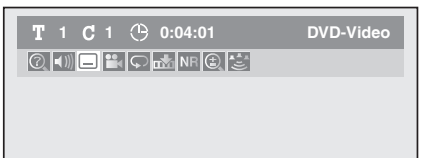
Searching by Time

DVD-VIDEO | DVD-RW VIDEO | DVD-RW VR | DVD-R | CD | VCD PBC OFF

1) During playback, press [DISPLAY].

The Display menu will appear.

<eg. DVD-Video>



2) Using [◀ / ▶], select . Press [ENTER].

The number next to T will be highlighted.
To move to the number next to , press [▶].
When time search is not available, and time count are not displayed.

3) Using [▲ / ▼] or the Number buttons, enter a desired time to search. Press [ENTER].

Time search will start.

Note

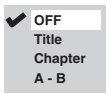
- Time search function is available only in the same track or title.

Repeat Play

DVD-VIDEO | DVD-RW VIDEO | DVD-RW VR | DVD-R
CD | MP3 | WMA | JPEG | VCD PBC OFF

1 During playback, press [REPEAT].
Repeat menu will appear.

<DVD-Video>



<Audio CD, Video CD>

<MP3, WMA, JPEG files>

- Option menu will change depending on the disc being played.

2) Using [▲ / ▼], select a desired option to repeat. Press [ENTER].
The selected repeat play will start.

Title:
The current title will be played repeatedly. (DVD only)

Chapter:
The current chapter will be played repeatedly.
(DVD only)

All:
The current disc will be played repeatedly. (Video CD, Audio CD, MP3, WMA, JPEG and DVD-RW (VR mode) only)

A-B:
The A-B point will be played repeatedly.
(DVD, Video CD, Audio CD)
When pressing [ENTER] while A-B is highlighted, A-B repeat is set.
Press [ENTER] again to decide the starting point (A).
Press [ENTER] after setting point A to select the ending point (B).

Track:
The current track will be played repeatedly. (Video CD, Audio CD, MP3, WMA and JPEG only)

Group:
The current group will be played repeatedly. (MP3, WMA and JPEG only)

Notes
- The A-B Repeat playback can only be set within the current title (for DVDs), or current track (for Video CDs and Audio CDs).
- To cancel the repeat playback, select "OFF" at step 2. The repeat setting will also be cancelled when you stop playback.
- You cannot select "Group" during the random playback of MP3, WMA or JPEG files.

Random Play

CD | MP3 | WMA | JPEG | VCD PBC OFF

With this function, you can play a disc randomly instead of playing in the original order.

1) Press [SETUP] in stop mode.

2) Using [▲ / ▼], select "CD Playback Mode". Press [ENTER].
CD Playback Mode menu will appear.

3) Using [▲ / ▼], select "Random Play". Press [ENTER].
Random play will start.

Note
- To cancel random play, press [STOP ■] twice during random play. "Playmode OFF" appears on the screen.
- For Video CDs with PBC function, the PBC setting will be switched to off automatically when you start random playback.

Program Play

CD | VCD PBC OFF

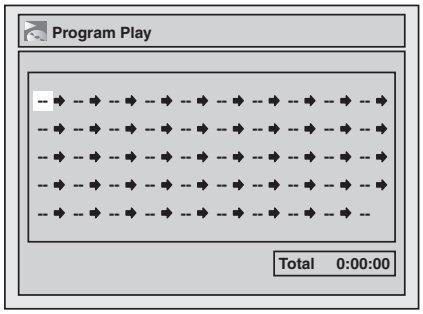
You can program the disc to play in your desired order.

1) Press [SETUP] in stop mode.

2) Using [▲ / ▼], select "CD Playback Mode". Press [ENTER].
CD Playback Mode menu will appear.

3) Using [▲ / ▼], select "Program Play". Press [ENTER].
Program Play list will appear.

4) Using [▲ / ▼], select a desired track. Press [ENTER] or [►].



A cursor will move to next.

5) Press [PLAY ►] to start program playback.
Program playback will start.

Notes
- To erase tracks you selected, press [CLEAR].
- You can make program settings up to 50.
- To cancel program play, press [STOP ■] twice during program play. "Playmode OFF" appears on the screen.
- You may also select a desired track using the Number buttons at step 4.
- For Video CDs with PBC function, the PBC setting will be switched to off automatically when you start program playback.

Slide Show

JPEG

You can select the display time between 5 seconds and 10 seconds.

1) Follow steps 1 and 2 in "Random Play".

2) Select "Slide Show" using [▲ / ▼], then press [ENTER].

3) Select the display time using [▲ / ▼], then press [ENTER].

Note
- Large-size JPEG files take a few moments to be displayed.

Selecting the format of audio and video

You can select the format of audio and video as you prefer depending on the contents of the disc you are playing.

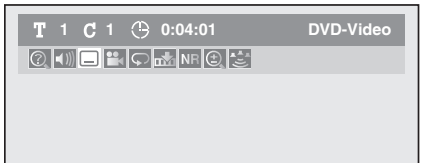
Switching subtitles

DVD-VIDEO | DVD-RW VR

Many DVD-Video discs have subtitles in one or more languages – the case usually tells you which subtitle languages are available. You can switch subtitle languages anytime during playback.

1) During playback, press [DISPLAY].
The Display menu will appear.

2) Using [◄ / ►], select . Press [ENTER].



Subtitle menu will appear.

3) Using [▲ / ▼], select a desired subtitle language. Press [ENTER].

Subtitle will be displayed in the selected language.
When selecting “OFF”, subtitle will disappear.

Notes

- Some discs will only allow you to change the subtitle from the Disc menu. Press [TOP MENU] or [MENU / LIST] to display the Disc menu.
- If a 4-digit language code appears in the subtitle menu at step 3, refer to the “Language code” on page 153.

Switching audio soundtrack

DVD-VIDEO | DVD-RW VR | CD | VCD

When playing a title recorded with two or more soundtracks (these are often in different languages), you can switch them during playback.

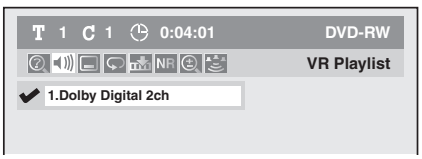
When playing, Video CDs or Audio CDs, you can switch between stereo, just the left channel or just the right channel.

1) During playback, press [DISPLAY].
The Display menu will appear.

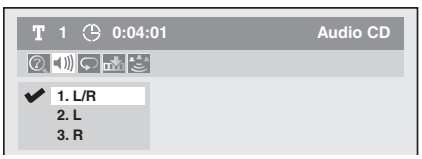
2) Using [◄ / ►], select . Press [ENTER].
Audio menu will appear.

<DVD-Video>

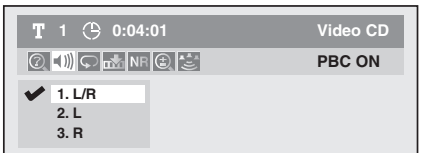
<DVD-RW VR mode>



<Audio CD>



<Video CD>



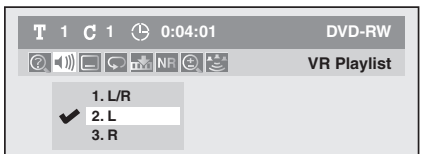
3) Using [▲ / ▼], select a desired audio soundtrack or audio channel. Press [ENTER].

<DVD-Video>

Audio soundtrack will switch.

<DVD-RW VR mode with main and sub channel>

Audio channel menu will appear.



Using [▲ / ▼], select a desired audio channel. Press [ENTER].

<Video CDs, Audio CD>

Audio channel will switch.

Notes

- Some discs will only allow you to change the soundtrack from the Disc menu. Press [TOP MENU] or [MENU / LIST] to display the Disc menu.
- Although this unit cannot record both Stereo (main) and SAP (sub) at the same time, some VR mode DVD-RW discs may contain both audio. With such discs, you can select either Main (L), Sub (R) or both (L+R) as your playback audio. Refer to “Notes on TV channel audio” on page 37 for more details.

Switching virtual surround system

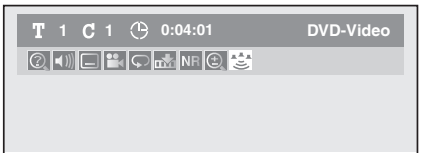
DVD-VIDEO | DVD-RW VIDEO | DVD-RW VR | DVD-R | CD | MP3 | WMA | VCD

You can enjoy stereophonic virtual space through your exciting 2 channel stereo system.

1) During playback, press [DISPLAY].

The Display menu will appear.

2) Using [◄ / ►], select . Press [ENTER].

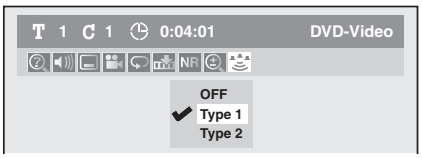


Virtual Surround menu will appear.

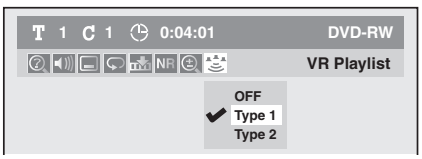
3) Using [▲ / ▼], select “OFF”, “Type 1” or “Type 2”. Press [ENTER].

- OFF: no effect
- Type 1: natural effect
- Type 2: emphasised effect

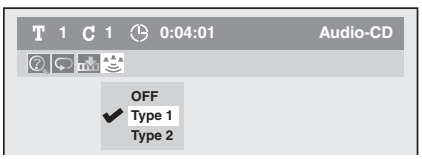
<DVD-Video>



<DVD-RW VR mode>



<Audio CD, MP3, WMA, Video CD>



Notes

- Select Virtual Surround to “OFF” in a case sound is distorted.
- The setting will be kept even when the unit is turned off.

Switching camera angles

DVD-VIDEO

Some DVD-Video discs contain scenes which have been shot simultaneously from a number of different angles. For these discs, the same scenes can be viewed from different angles.

1) During playback, press [DISPLAY].
The Display menu will appear.

2) Using [◄ / ►], select . Press [ENTER].
Angle will switch each time you press [ENTER].

Angle icon appears when a switching camera angle is available.

Note

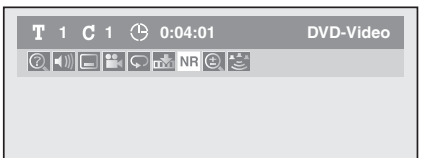
- Angle icon does not appear on the screen in a case you have selected Angle as "OFF" in the Display setting. Refer to pages 135-136.

Reducing block noise

DVD-VIDEO | DVD-RW VIDEO | DVD-RW VR | DVD-R | VCD

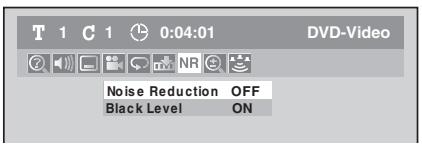
1) During playback, press [DISPLAY].
The Display menu will appear.

2) Using [◄ / ►], select NR . Press [ENTER].



Noise Reduction menu will appear.

3) Using [▲ / ▼], select "Noise Reduction". Press [ENTER].



Option menu will appear.

4) Using [▲ / ▼], select a desired option. Press [ENTER].
Your setting will be activated.

This function reduces noise in the playback picture. When playing back discs recorded in long time mode such as SLP or SEP mode, select "Type 1" or "Type 2". ("Type 2" is more effective.)

When playing back discs with a few noises such as DVD-Video discs, select "OFF".

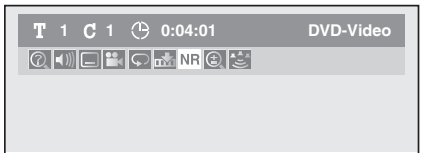
Adjusting Black Level

DVD-VIDEO | DVD-RW VIDEO | DVD-RW VR | DVD-R

You can adjust the Black Level Setting to make the dark areas of the TV picture brighter.

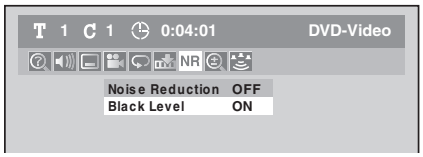
1) During playback, press [DISPLAY].
The Display menu will appear.

2) Using [◄ / ►], select NR . Press [ENTER].



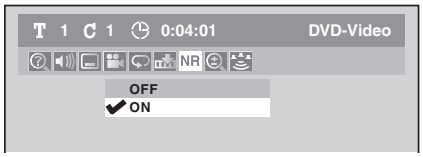
Noise Reduction menu will appear.

3) Using [▲ / ▼], select "Black Level". Press [ENTER].



Option menu will appear.

4) Using [▲ / ▼], select "ON". Press [ENTER].
Your setting will be activated.



Notes

- You can adjust Black Level Setting only during playback.
- The setting will be kept even when the unit is turned off.

Symbols in this Section

The following icons show the playable discs for each function described on this section.

DVD-RW VR ORG : DVD-RW disc recorded in VR mode Original

DVD-RW VR PL : DVD-RW disc recorded in VR mode Playlist

DVD-RW VIDEO : DVD-RW disc recorded in Video mode

DVD-R : DVD-R disc

Most instructions are based on the remote control operation, unless otherwise noted. You can use the buttons on the remote control as well as those on the main unit when they have the same function.

Editing

You can create your own movie from your assembled scenes. Save your favorite videos in DVD discs.

- **Information on disc editing**
- **Editing discs**

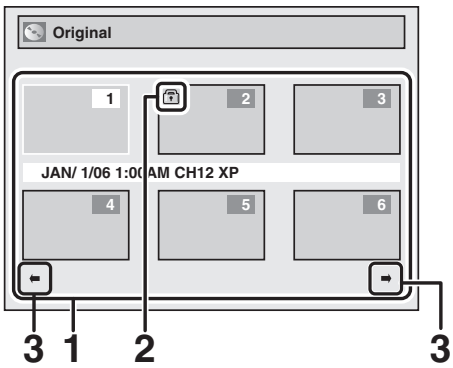
Information on disc editing

Guide to a title list

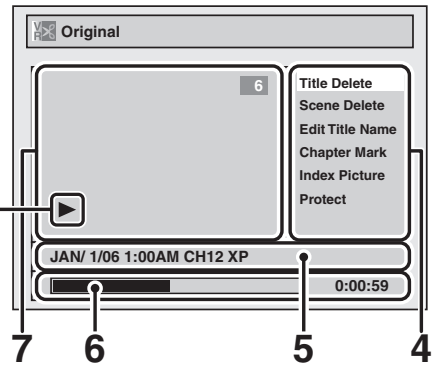
Title list allows you to check the titles recorded on the disc easily. You can choose a title to play from this screen and easily edit the titles as you prefer.

Press [TOP MENU].

<Main Title List>



<Specific title options>



1. Titles recorded on the disc can be selected to edit or play by pressing [ENTER] with the cursor on the title.
2. The protect icon, which appears when the title has been protected. (Original titles only)
3. The arrow icon, which means the Title list includes a next or a previous page. Press [◄ / ►] by following direction of the icon.
4. The menus in here are for editing titles as you prefer. The available menus depend on the disc type and the format type. An item which is not available is grayed.
5. The details of the title, which can be changed in “Edit Title Name”.
6. Time status bar of the title.
   Time status will be held even after exiting the edit mode, and you can resume playback from that point.
7. The selected title thumbnail from the title list.
8. Playback status of the current disc.

Edit the recorded disc

You will find editing discs is easy. This unit offers convenient edit functions which are possible only with DVD-R/RW discs.

You can edit the following from a title list.
- **Assigning a name to a title**
- **Setting pictures for thumbnails**
- **Adding or deleting chapter marks**
- **Deleting titles or parts of titles**

(Possible editing functions depend on the recording format and editing method.)

Original and Playlist (VR mode)

You can edit the recordings in Playlist without changing the original recordings. Playlist does not take up much disc space.

What “Original” or “Playlist” is for?

Throughout this manual, you will find Original and Playlist which refer to the actual content and the edited version.
- **Original** content refers to what’s actually recorded on the disc.
- **Playlist** content refers to the edited version of the disc; how the Original content is to be played.

Finalizing a Disc
- This will allow a disc that is recorded on this unit to be played back on a different DVD player — without finalization it will not be playable on another player.
- After finalizing a disc in Video mode, you cannot edit any information that is on that disc.
- If you have recorded in VR mode on DVD-RW disc, then editing is still permitted after finalizing.

Using these editing functions to modify copyrighted content for any purpose other than your private viewing may be prohibited under the Copyright Laws of the United States and other countries, and may subject you to civil and criminal liability.

Editing discs

Type of title	Item	Page
DVD-RW Video Mode	Deleting titles	102
	Editing title names	105
DVD-RW VR Mode Original	Adding or deleting chapter marks	108
	Setting pictures for thumbnails	110
	Deleting parts of titles	112
DVD-RW VR Mode Playlist	Dividing a title	116
	Combining titles	118
	Adding titles to a Playlist	120
	Erasing all Playlist	122
DVD-RW VR mode Original only	Setting or releasing the title protection	124
DVD-RW Video mode only	Setting or clearing all the chapter marks in one title	126

Note

- Original titles once edited will not remain as recorded originally. When you want to leave the original as it is, edit the Playlist as you prefer.

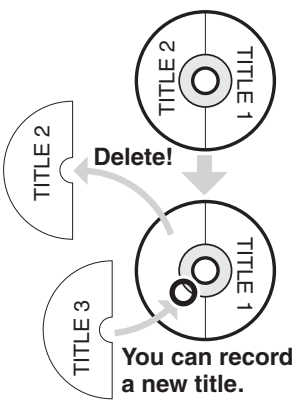
Notes for deleting titles

After the disc is fully recorded:

DVD-RW

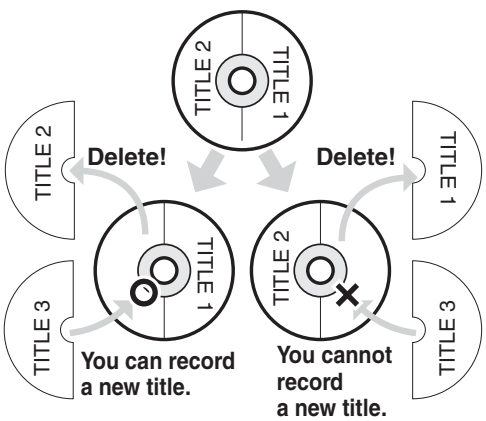
- **When a title is deleted from DVD-RW disc in VR mode, the recordable disc space will be increased.**

The Full-Recorded disc



- **When the last title is deleted from DVD-RW disc in Video mode , the recordable space will be increased.**

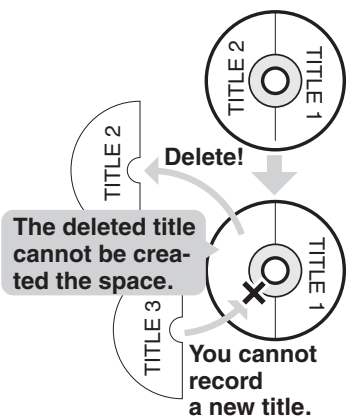
The Full-Recorded disc



DVD-R

- **When a title is deleted from DVD-R disc, the recordable space will NOT be increased.**

The Full-Recorded disc



Once all editings are made, press [RETURN] in several times to exit the editing mode. “Writing to Disc” appears momentarily. It also appears when opening the disc tray or pressing [I/⏻ ON/STANDBY] before exiting the editing mode after editing.

Editing discs

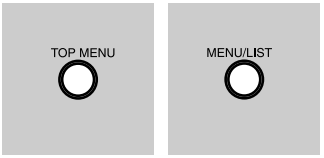
Deleting titles

DVD-RW VR ORG | DVD-RW VR PL | DVD-RW VIDEO | DVD-R

You can delete titles which you do not need any more. Be advised that the titles once deleted cannot be brought back to the disc. Be sure to read "Notes for deleting titles" on page 101 before you delete the title.

1 Press [TOP MENU].

Title list, Original or Playlist will appear.

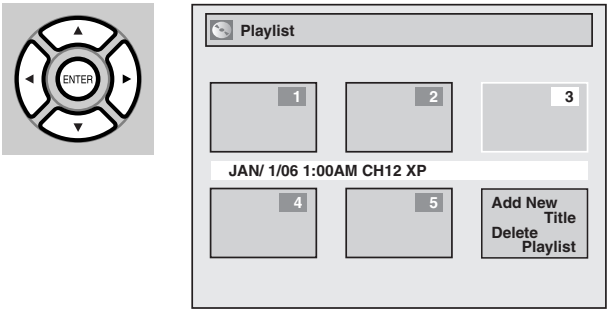


- Press [MENU/LIST] to switch between "Original" and "Playlist" if the disc is recorded in VR mode.

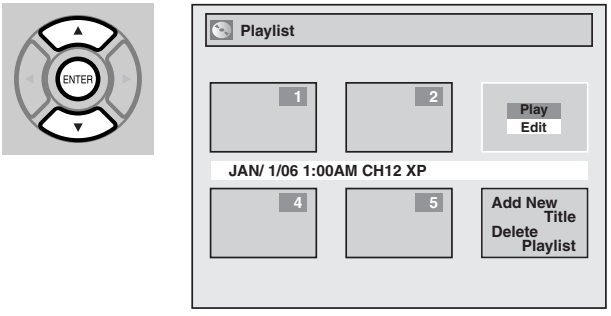
2 Using [▲ / ▼ / ◄ / ►], select the desired title. Press [ENTER].

Pop-up window will appear.

<e.g. DVD-RW VR mode Playlist>

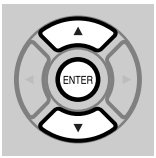


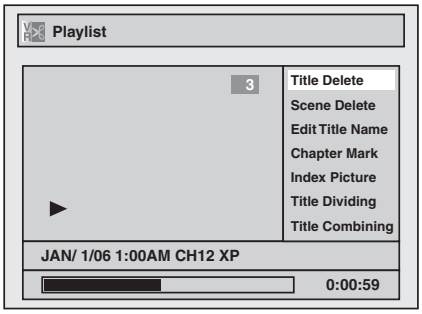
3 Using [▲ / ▼], select "Edit". Press [ENTER].



Edit menu will appear.

4 Using [▲ / ▼], select “Title Delete”. Press [ENTER].

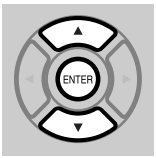


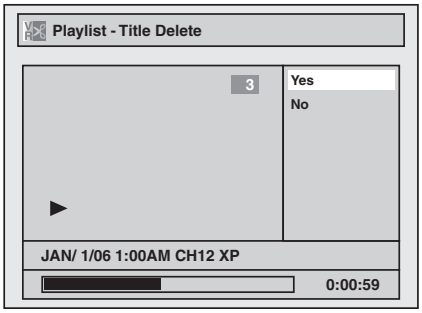


Confirmation window will appear.

5 Using [▲ / ▼], select “Yes”. Press [ENTER].

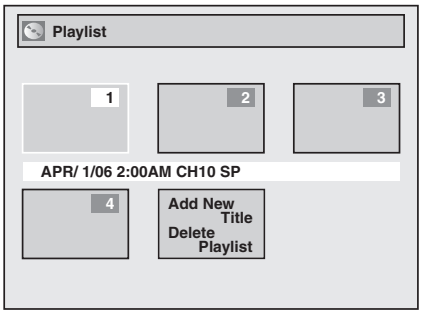
After that, “Are you sure?” will appear, so select “Yes” with [▲ / ▼] and then press [ENTER].





“Wait for a moment.” will appear, and the operation may take a while to be completed.

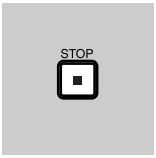
Title will be deleted.



(Continued)

6 After this operation is completed, press [RETURN] or [STOP ■] to exit.

Data will be written onto the disc momentarily.



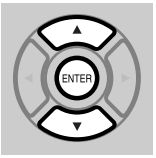
Editing title names

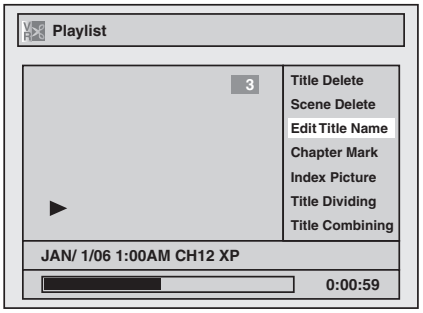
DVD-RW VR ORG | DVD-RW VR PL | DVD-RW VIDEO | DVD-R

You can change the title names from this menu.
The names you input for the titles will be displayed on Title List / Original / Playlist.

1 **Follow steps 1 to 3 on page 102 to display the Edit menu.**
Using [▲ / ▼], select "Edit Title Name".
Press [ENTER].

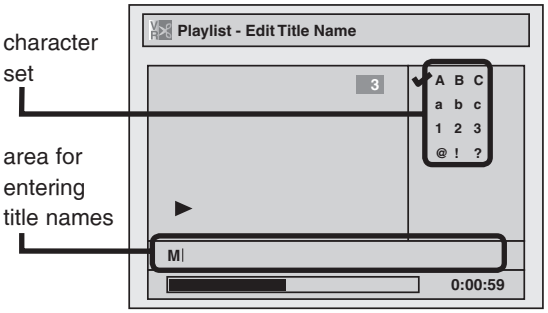
<e.g. DVD-RW VR mode Playlist>





(Continued)

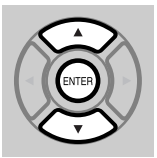
2 To enter a title name, follow the steps for "Guide to edit title name" on next page.

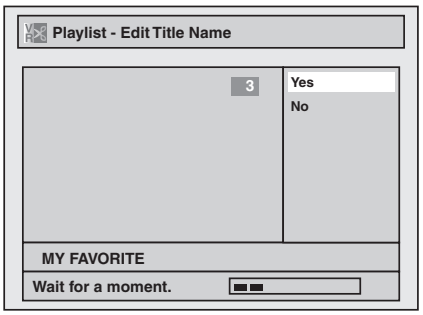


When you finish entering a title name, press [ENTER]. Confirmation window will appear.

3 Using [▲ / ▼], select "Yes". Press [ENTER].

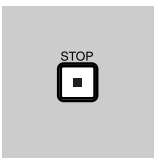
The name you entered will replace the current title.





4 Press [RETURN] and then [RETURN] or [STOP ■] to exit.

Data will be written onto the disc momentarily.



This operation may take a while to be completed.

Guide to edit title name

DVD-RW VR ORG | DVD-RW VR PL | DVD-RW VIDEO | DVD-R

[Step1]: Select a desired character set using [▲/▼], then press [ENTER].

✔ A B C
a b c
1 2 3
@ ! ?

[Step2]: Follow the list below, press the Number buttons repeatedly until the desired letter appears.

e.g. character set : A B C

press 2
A B C A…

Select ✔ / Press	ABC	abc	123	@ ! ?
0	<space>	<space>	0	<space>
1	(*1)	(*1)	1	! " # $ % & ' ( ) * + , - . / : ; < = > ? @ [ ] ^ _ { | }
2	ABC	abc	2	(*2)
3	DEF	def	3	(*2)
4	GHI	ghi	4	(*2)
5	JKL	jkl	5	(*2)
6	MNO	mno	6	(*2)
7	PQRS	pqrs	7	(*2)
8	TUV	tuv	8	(*2)
9	WXYZ	wxyz	9	(*2)

Note:
Undefined letters in a title name are shown by "*". If you delete them, adjoining letters may change to "*" or other.

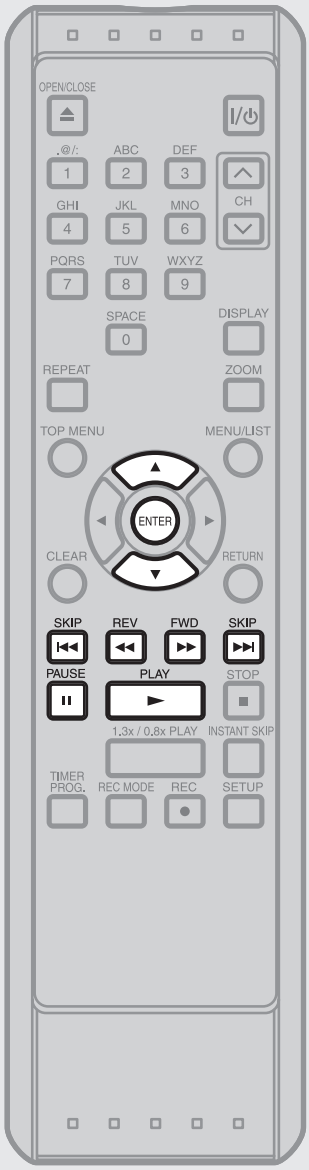
*1 Press 1, character set will be changed to the " @!? " mode automatically.

*2 Press 2 to 9 character set will be changed to the previous input mode automatically.

- To delete letters, press [CLEAR] repeatedly. Holding [CLEAR] to delete all letters.
- Press [◄ / ►] to move the cursor to the left or right.
- You can enter up to 30 letters.

Adding or deleting chapter marks

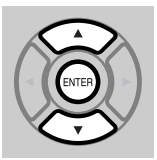
DVD-RW VR ORG | DVD-RW VR PL

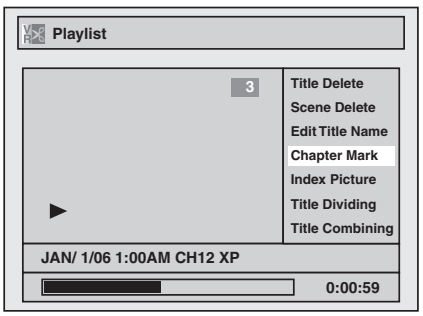


You can add or delete chapter marks on each title.
Once a chapter is marked, you can use it for the chapter search feature.
You can add chapter marks anywhere you want.

1 **Follow steps 1 to 3 on page 102 to display the Edit menu.**
Using [▲ / ▼], select "Chapter Mark".
Press [ENTER].

<eg. DVD-RW VR mode Playlist>

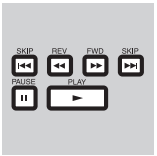


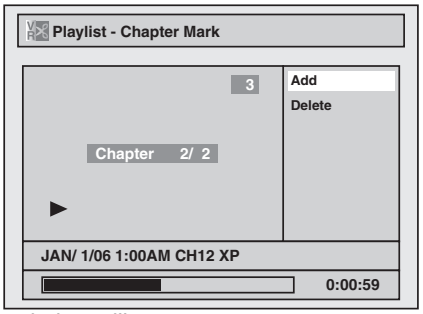


Option window will appear.

2 **Use [SKIP |◀◀ / ▶▶|], [REV ◀◀], [FWD ▶▶], [PLAY ▶] and [PAUSE ❚❚] to decide the point at which you want to create a new chapter mark. Or, use [SKIP |◀◀ / ▶▶|] to decide a chapter mark that you want to delete. Select "Add" or "Delete" accordingly using [▲ / ▼] . Press [ENTER].**

<e.g :Add>





Confirmation window will appear.

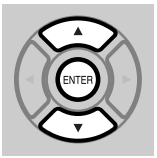
- You cannot delete the first chapter of each title.

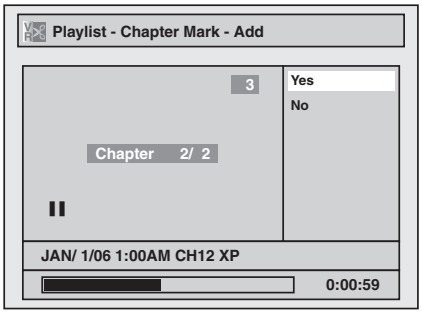
Note

- When the number of chapter marks in the Playlist comes to 999 in total, you cannot add any more chapter mark.

3 Using [▲ / ▼], select “Yes”. Press [ENTER].

The chapter mark will be added or deleted depending on what you selected.

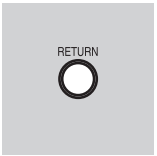


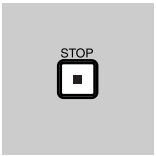


“Wait for a moment.” will appear, and the operation may take a while to be completed.

4 After this operation is completed, press [RETURN] twice and then [RETURN] or [STOP ■] to exit.

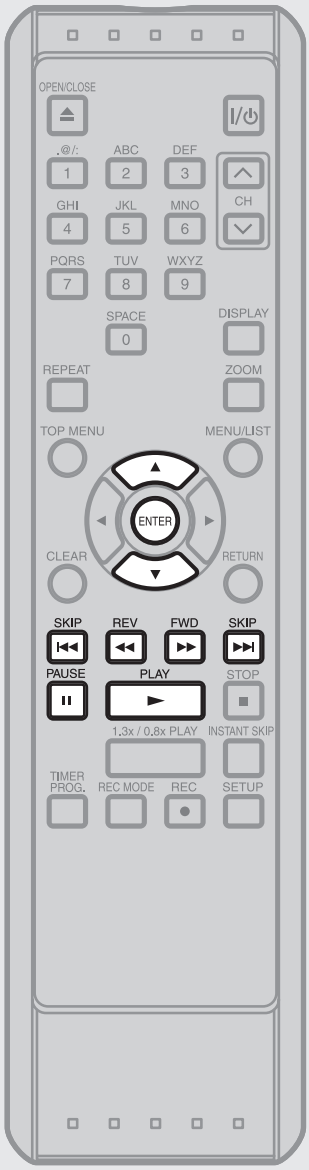
Data will be written onto the disc momentarily.





Setting pictures for thumbnails

DVD-RW VR ORG | DVD-RW VR PL



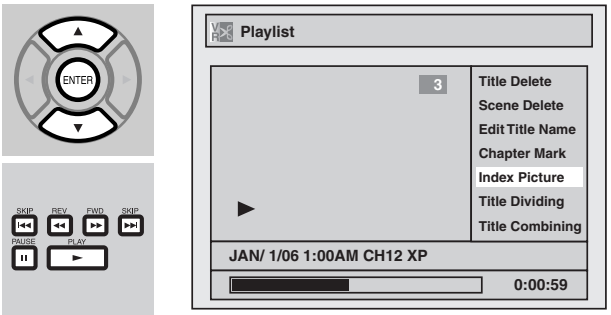
You can set a picture to each title for a thumbnail. It helps you to remember the contents of the title you are playing. The beginning picture has been selected as the default.

1 **Follow steps 1 to 3 on page 102 to display the Edit menu.**

Edit menu will appear.

2 **Use [SKIP ⏮ / ⏭], [REV ◀◀], [FWD ▶▶], [PLAY ▶] and [PAUSE ❚❚] to decide the picture you want to select as a thumbnail. Using [▲ / ▼], select "Index Picture". Press [ENTER].**

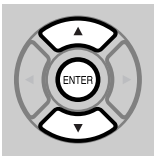
<eg. DVD-RW VR mode Playlist>

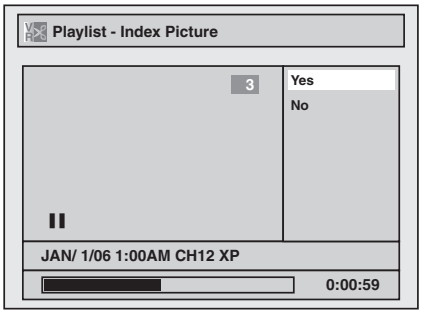


Confirmation window will appear.

- To select the image you want to use, play the content (you can use the track and FWD/REV functions to find the image quickly.) Once you find the image, press [Pause ❚❚]. Then proceed to selecting "Index Picture" to the menu list to the right.

3 Using [▲ / ▼], select “Yes”. Press [ENTER].



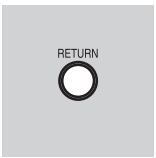


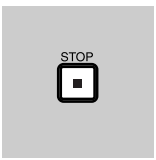
“Wait for a moment.” will appear, and the operation may take a while to be completed.

A picture for thumbnail will be set.

4 After this operation is completed, press [RETURN] and then [RETURN] or [STOP ■] to exit.

Data will be written onto the disc momentarily.





Note

• If a selected picture for a thumbnail is deleted by deleting parts of a title, a default picture will be selected.

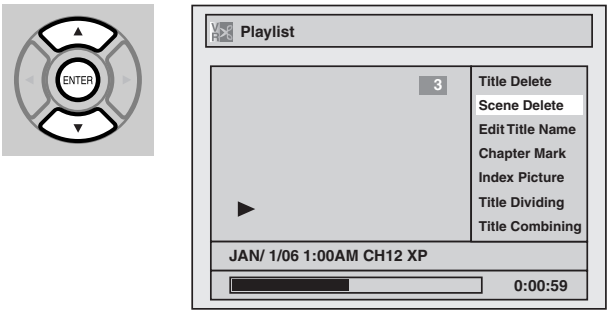
Deleting parts of titles

DVD-RW VR ORG | DVD-RW VR PL

You can delete a specific part of a title.
Even when parts of title are deleted from the Playlist, the original title will remain as it is.
The disc space to record will not be increased.

1 **Follow steps 1 to 3 on page 102 to display the Edit menu.**
Using [▲ / ▼], select "Scene Delete". Press [ENTER].

<eg. DVD-RW VR mode Playlist>



Option window will appear.

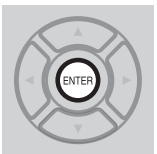
2 Use [SKIP |◀◀ / ▶▶|], [REV ◀◀], [FWD ▶▶], [PLAY ▶] and [PAUSE ❚❚] to decide the start point, then press [ENTER]. Then use [SKIP |◀◀ / ▶▶|], [REV ◀◀], [FWD ▶▶], [PLAY ▶] and [PAUSE ❚❚] again to move to the end point, and press [ENTER].

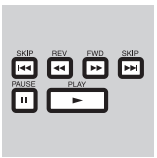
A cursor will move to “Preview”.

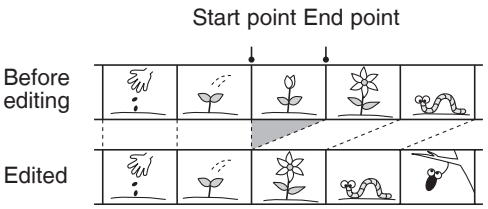
The bar at the bottom of the screen indicates the total and the elapsed time of the title, and the area selected for deletion will be indicated in red.

Press [ENTER] again to start the preview.

You can check the result of deletion by “Preview”.



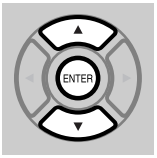


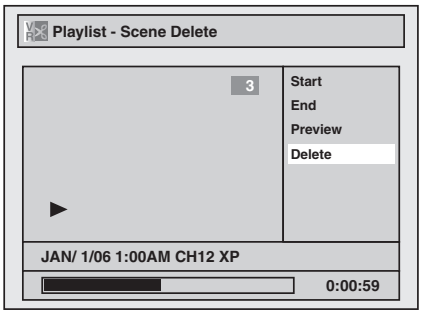


(Continued)

3 Using [▲ / ▼], select "Delete". Press [ENTER].

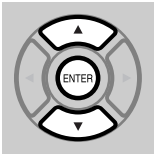
Confirmation window will appear.

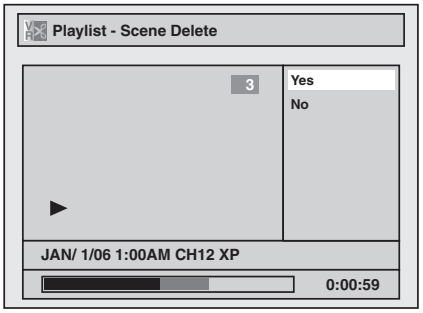




4 Using [▲ / ▼], select "Yes". Press [ENTER].

After that, "Are you sure?" will appear, so select "Yes" with [▲ / ▼] and then press [ENTER].



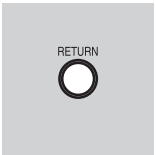


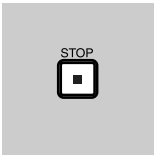
Part of a title will be deleted.

"Wait for a moment." will appear, and the operation may take a while to be completed.

5 **After this operation is completed, press [RETURN] and then [RETURN] or [STOP ■] to exit.**

Data will be written onto the disc momentarily.





Notes

- Original titles once edited will not remain as recorded originally. When you want to leave the original as it is, edit the Playlist as you prefer.
- You cannot select “Scene Delete” when the number of chapter marks is more than 900.

Dividing a title

DVD-RW VR PL

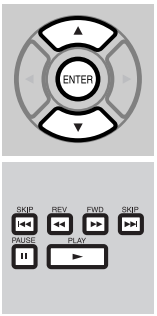
You can divide a title into two new titles.

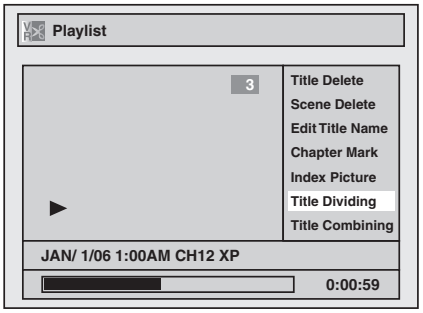
1 **Follow steps 1 to 3 on page 102 to display the Edit menu.**

Edit menu will appear.

2 **Use [SKIP ⏮◀◀ / ▶▶⏭], [REV ◀◀], [FWD ▶▶], [PLAY ▶] and [PAUSE ❚❚] to decide the point at which you will divide the title. Using [▲ / ▼], select "Title Dividing". Press [ENTER].**

<eg. DVD-RW VR mode Playlist>



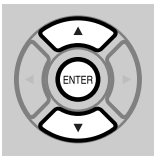


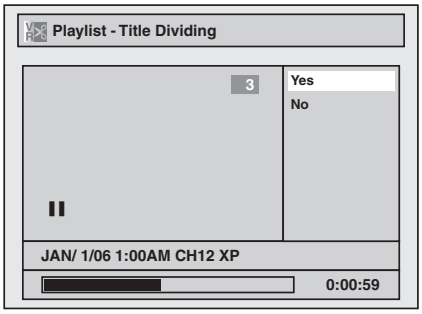
Confirmation window will appear.

3 Using [▲ / ▼], select “Yes”. Press [ENTER].

The title will be divided into two new titles.

Both title names are identical, and index pictures are reset to the first scene at this point.

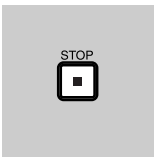




“Wait for a moment.” will appear, and the operation may take a while to be completed.

4 After this operation is completed, press [RETURN] or [STOP ■] to exit.

Data will be written onto the disc momentarily.



Note

- You cannot divide a title of the disc on which the number of recording title comes up to the maximum (99), and the number of recording chapter comes up to the maximum (999).

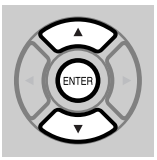
Combining titles

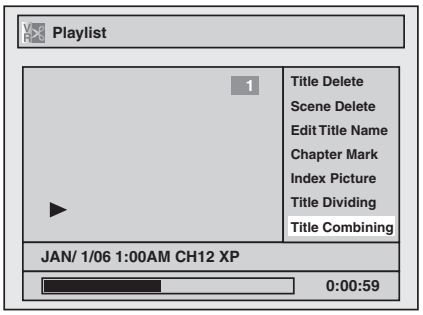
DVD-RW VR PL

You can combine two titles into a single title.

1 **Follow steps 1 to 3 on page 102 to display the Edit menu.**
Using [▲ / ▼], select "Title Combining". Press [ENTER].

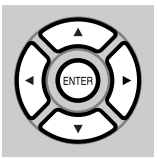
<eg. DVD-RW VR mode Playlist>

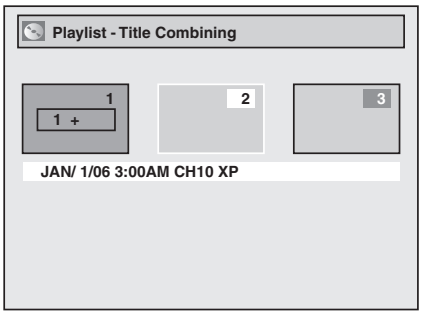




Title Combining setting window will appear.

2 **Using [▲ / ▼ / ◄ / ►], select another title to combine. Press [ENTER].**

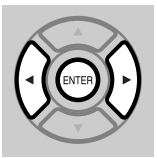


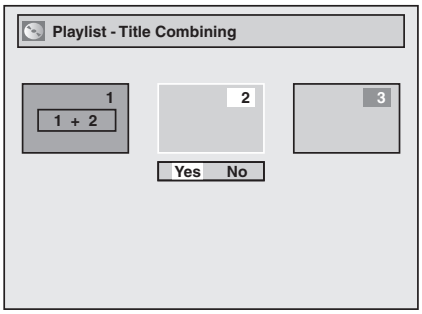


Confirmation window will appear.

3 Using [◄ / ►], select “Yes”. Press [ENTER].

Two titles will combine into a single title.

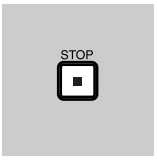


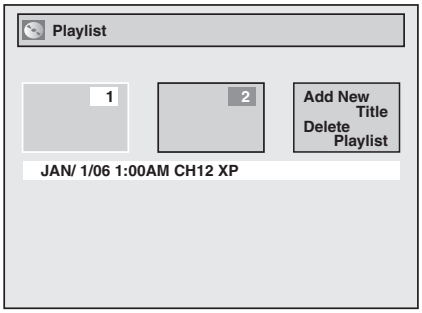


“Wait for a moment.” will appear, and the operation may take a while to be completed.

4 After this operation is completed, press [RETURN] or [STOP ■] to exit.

Data will be written onto the disc momentarily.





Notes

- You cannot combine the same titles into a single title.
- If one of two titles in the original is deleted, the combined new title will be deleted automatically.
- Selection order for the combining is affected in the combined new title.

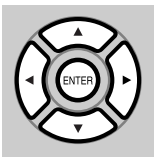
Adding titles to a Playlist

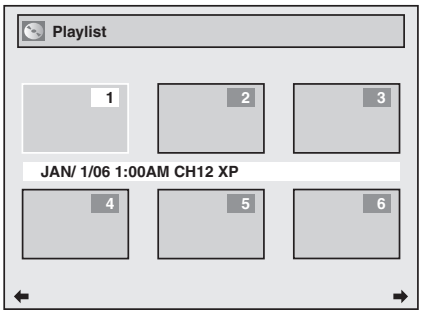
DVD-RW VR PL

You can add a title in the Playlist as you prefer.
You can add up to 99 titles to a Playlist.

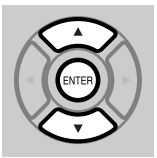
1 **Follow step 1 on page 102 to display the Playlist.**

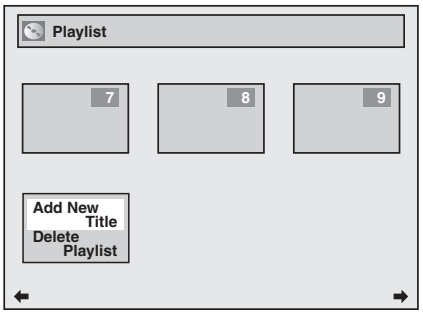
2 **Using [▲ / ▼ / ◄ / ►] to go to the next of the final title, "Add New Title" "Delete Playlist" menu is shown.**



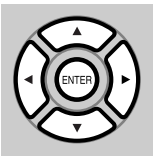


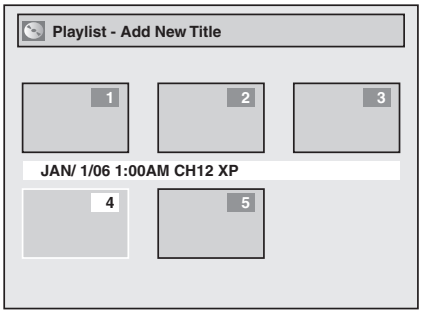
3 **Using [▲ / ▼], select "Add New Title". Press [ENTER].**





4 Using [▲ / ▼ / ◄ / ►], select a desired title. Press [ENTER].





"Wait for a moment." will appear, and the operation may take a while to be completed.

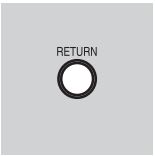
The added title will appear as the final title.

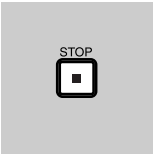
5 After this operation is completed, press [RETURN] or [STOP ■] to exit.

Data will be written onto the disc momentarily.

To delete a title from Playlist, refer to "Deleting titles" on page 102.

To erase all titles in the Playlist, refer to "Erasing all Playlist" on next page.





Note

• When a Playlist contains 99 titles or more, or 999 chapters or more, "Add New Title" cannot be selected.

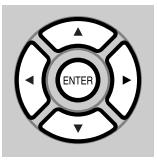
Erasing all Playlist

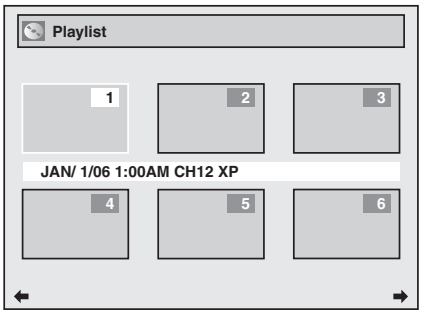
DVD-RW VR PL

You can erase all titles in the Playlist.

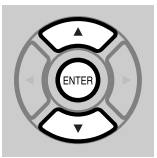
1 **Follow step 1 on page 102 to display the Playlist.**

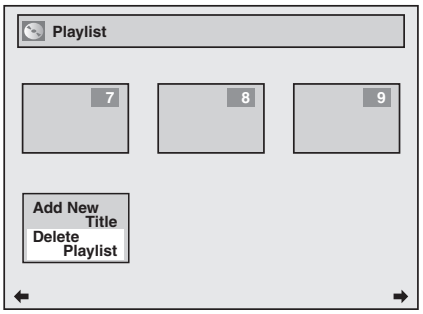
2 **Using [▲ / ▼ / ◄ / ►] to go to the next of the final title, "Add New Title" "Delete Playlist" menu is shown.**



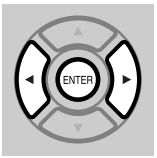


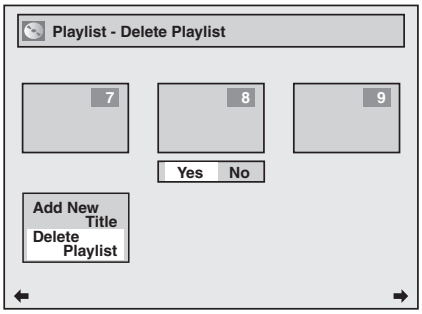
3 **Using [▲ / ▼], select "Delete Playlist". Press [ENTER].**





4 Using [◄ / ►], select “Yes”. Press [ENTER].

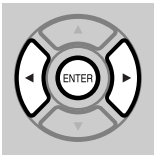




Final confirmation window will appear.

5 Using [◄ / ►], select “Yes”. Press [ENTER].

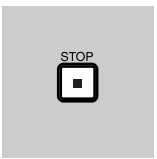
All titles in the Playlist will be erased.

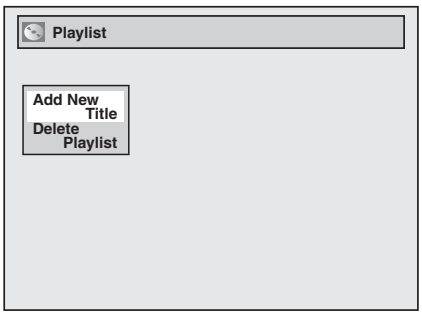


“Wait for a moment.” will appear, and the operation may take a while to be completed.

6 After this operation is completed, press [RETURN] or [STOP ■] to exit.

Data will be written onto the disc momentarily.





Note

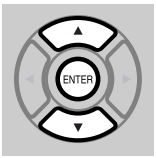
• Deleting a Playlist will not increase the available recording space on disc.

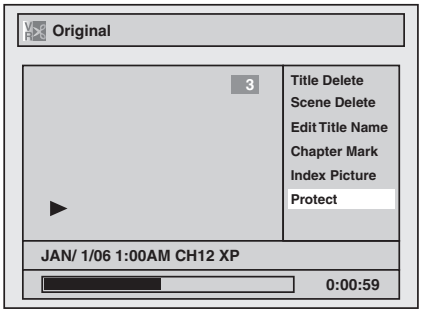
Setting or releasing the title protection

DVD-RW VR ORG

To prevent accidental editing, or erasing the titles, you can protect them from the Edit menu.
You can cancel the title protection feature after it is applied.

1 Follow steps 1 to 3 on page 102 to display the Edit menu. Using [▲ / ▼], select "Protect". Press [ENTER].

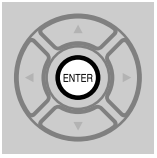


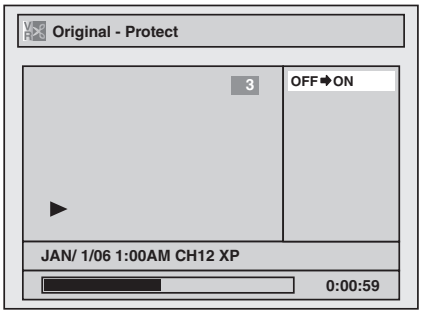


Option window will appear.

• If the title is protected, icon will appear on the Original title.

2 Confirm the indication. "OFF ➡ ON". Press [ENTER].





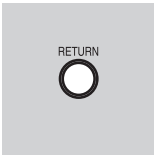
• If the title is already protected, "ON ➡ OFF" will appear. If you press [ENTER], the title will be released from protection.

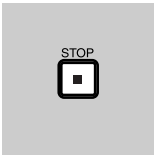
• icon will appear on the title in the Original title.

"Wait for a moment." will appear, and the operation may take a while to be completed.

3 After this operation is completed, press [RETURN] and then [RETURN] or [STOP ■] to exit.

Data will be written onto the disc momentarily.





To protect the whole disc (DVD-RW VR mode Only):

Select “Disc Protect OFF ➡ ON” from the Disc menu, then select “Yes”.

Refer to “Setting disc protection” on page 72.

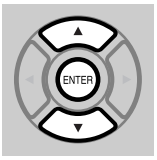
- **For important titles you really want to keep, set the disc protection beside the title protection.**
  See page 72 for setting the disc protection.

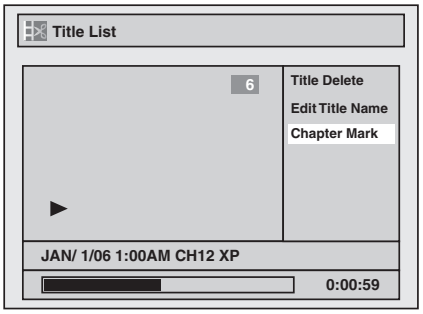
Setting or clearing all the chapter marks in one title

DVD-RW VIDEO

You can insert chapter marks at a specified time you selected for titles with more than 5 minutes. Once a chapter is marked, you can use it for the chapter search feature.

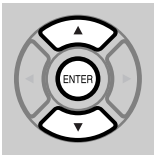
1 **Follow steps 1 to 3 on page 102 to display the Edit menu.**
Using [▲ / ▼], select "Chapter Mark".
Press [ENTER].

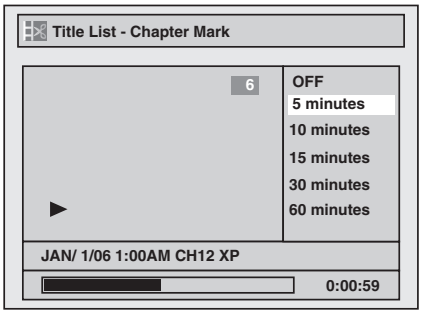




Option window will appear.

2 **Using [▲ / ▼], select desired time period.**
Press [ENTER].



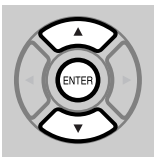


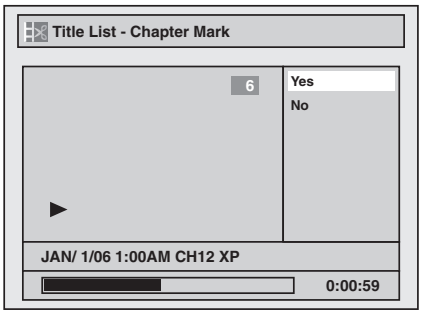
Confirmation window will appear.

• To clear all the chapter marks, select "OFF".

3 Using [▲ / ▼], select “Yes”. Press [ENTER].

Marks will be added or deleted.

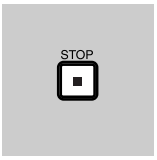




This operation may take a while to be completed.

4 After this operation is completed, press [RETURN] and then [RETURN] or [STOP ■] to exit.

Data will be written onto the disc momentarily.



Notes

- The interval of chapter marks may be slightly longer or shorter than the one specified at step 2.
- You cannot select a chapter mark interval that exceeds the length of a title.

Function Setup

You can change the default settings to customize performance to your preference.

- **Tour of the Setup menu**
- **Language setting**
- **Display setting**
- **Audio setting**
- **Settings for Parental lock level**
- **Settings for Progressive Scan Mode**
- **Settings for Still Mode**

Tour of the Setup menu

The following table is the contents which you can set and the default settings.
Refer to the following table for useful operation.

Setup	Items (highlight is the default)		Contents
1.Language setting ➔ Pages 132-134	Disc Menu Language	English French Spanish ⋮	Set the language for the Disc menu.
	Audio Language	Original English French ⋮	Set the language for audio.
	Subtitle Language	OFF English French ⋮	Set the language for subtitle.
2.Display setting ➔ Pages 135-136	OSD Language	English Français Español	Set the language for OSD (On Screen Display).
	Angle Icon	ON OFF	To turn the Angle icon ON or OFF during playback of DVD disc that contains multi-angle scenes.
	Screen Saver	OFF 5 minutes 10 minutes ⋮	Set the time to activate the screen saver on the screen.
	FL Dimmer	Auto Bright Dark	Set the brightness of the front panel display.

Setup	Items (highlight is the default)		Contents
3.Audio setting ➔ Pages 137-139	Digital Out	PCM 48kHz 96kHz	Set whether the sound recorded in 96kHz will be down sampled to 48kHz.
		Dolby Digital PCM Stream	Set the type of sound signal output from the digital audio output jack.
		DTS ON OFF	Set whether DTS signal will be output.
	Dynamic Range Control	ON OFF	Compressing the range of sound volume.
4.Parental setting ➔ Pages 140-142	Parental Lock	All level 8 to 1	Set the parental level of your DVD discs.
	(Change password)	Enter the current four-digit password	Set and change the password.
5.Video setting ➔ Pages 143-146	Progressive	ON OFF	Set to the progressive scan mode (set to “ON”) or to the interlace scan mode (set to “OFF”).
	Still Mode	Auto Field Frame	Set the type of still image in pausing playback.

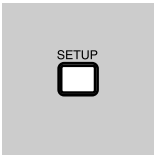
Notes

- If you change the setting in the Setup menu, the information of the contents stays on even when the power is switched off.
- An item which is not currently available is grayed in Setting menus.

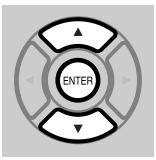
Language setting

Press [STOP ■] if you are playing a disc.

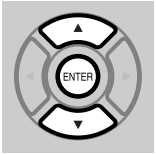
1 **Press [SETUP].**



2 **Using [▲ / ▼], select “Playback”.**
Press [ENTER].
Playback menu will appear.



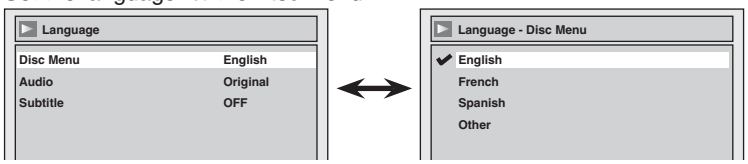
3 **Using [▲ / ▼], select “Language”.**
Press [ENTER].
Language menu will appear.



4 Using [▲ / ▼], select a desired item. Press [ENTER].

Disc Menu Language (Default : English)

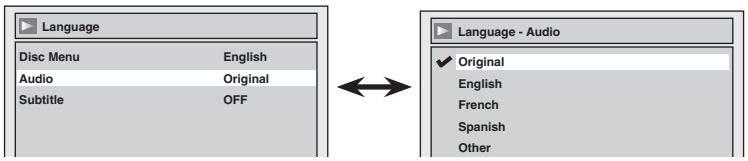
Set the language for the Disc Menu.



- **Using [▲ / ▼], select a setting. Press [ENTER].**
  Your setting will be activated.

Audio Language (Default : Original)

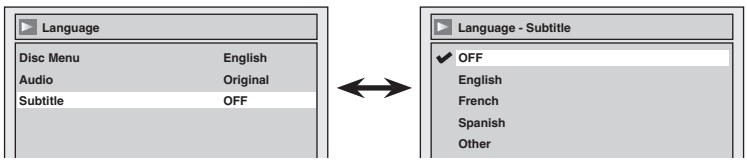
Set the Audio language.



- **Using [▲ / ▼], select a setting. Press [ENTER].**
  Your setting will be activated.
- When Original is selected, the audio language will be in the disc's default language.

Subtitle Language (Default : OFF)

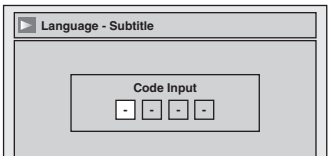
Set the Subtitle language.



- **Using [▲ / ▼], select a setting. Press [ENTER].**
  Your setting will be activated.

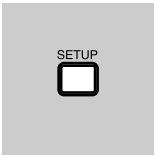
(Continued)

If "Other" is selected, press 4-digit code using the Number buttons. Refer to "Language code" on page 153.



• When you finish entering the code, press [ENTER].

5 Press [SETUP] to exit.



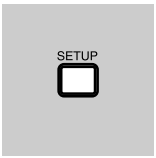
Notes

- Only the languages supported by the disc can be selected.
- Audio Language setting may not be available on some discs.
- Some DVD-Video discs allow you to change subtitle selections only via the disc menu. If this is the case, press [MENU/LIST] and choose the appropriate subtitle language from the selection on the disc menu.
- Press [CLEAR] or [◀] to erase numbers entered incorrectly at step 4.

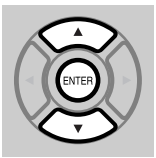
Display setting

Press [STOP ■] if you are playing a disc.

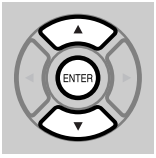
1 **Press [SETUP].**



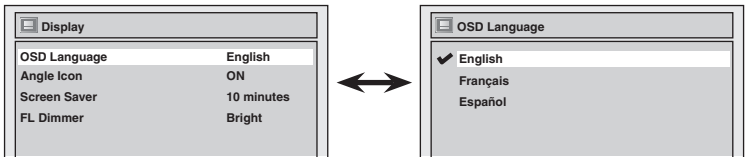
2 **Using [▲ / ▼], select "Display".**
Press [ENTER].
Display menu will appear.



3 **Using [▲ / ▼], select a desired item.**
Press [ENTER].



OSD Language (Default : English)
Set the language for OSD.

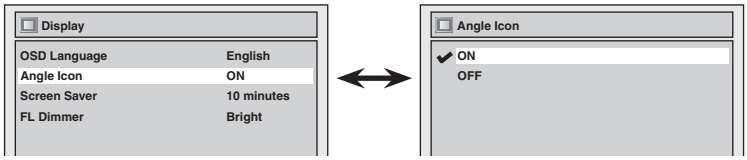


- **Using [▲ / ▼], select a setting. Press [ENTER].**
  Your setting will be activated.

(Continued)

Angle Icon (Default : ON)

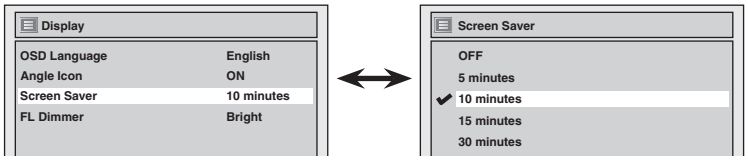
Set to "ON" or "OFF".



- **Using [▲ / ▼], select a setting. Press [ENTER].**
  Your setting will be activated.

Screen Saver (Default : 10 minutes)

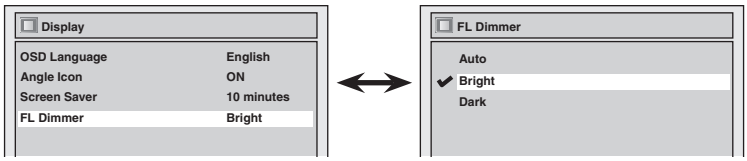
Set the time to activate the screen saver function on the screen.



- **Using [▲ / ▼], select a setting. Press [ENTER].**
  Your setting will be activated.

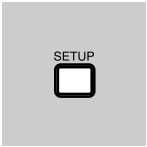
FL Dimmer (Default : Bright)

Set the brightness of the front panel display.
You can choose among "Auto", "Bright" and "Dark".



- **Using [▲ / ▼], select a setting. Press [ENTER].**
  Your setting will be activated.
- If "Auto" is selected, the display is shown brighter when the power is on, darker when the power is off.

4 Press [SETUP] to exit.

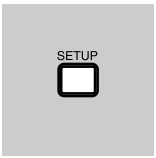


Audio setting

Choose the appropriate Audio settings for your equipment.
It will only affect DVD discs during playback.

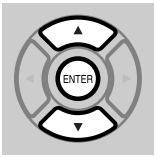
Press [STOP ■] if you are playing a disc.

1 Press [SETUP].

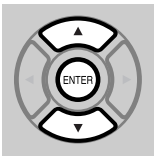


2 Using [▲ / ▼], select “Playback”. Press [ENTER].

Playback menu will appear.

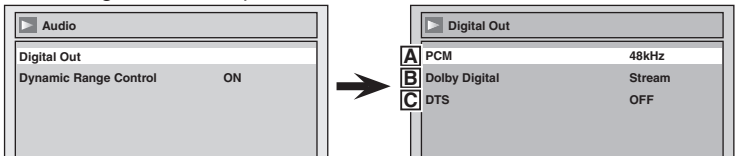


3 Using [▲ / ▼], select “Audio”. Press [ENTER].



Digital Out

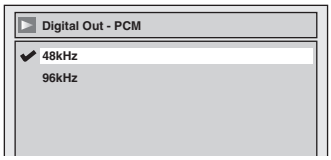
Set the digital audio output.



- **Using [▲ / ▼], select a setting. Press [ENTER].**
  Option window will appear. Proceed to step A, B or C on next page.

(Continued)

A Settings for PCM (Default : 48kHz)



- **Using [▲ / ▼], select a setting. Press [ENTER].**
  Your setting will be activated.

48kHz : If your amplifier/decoder is NOT compatible with 96kHz PCM, select "48kHz". 96kHz sound will be output in 48kHz.

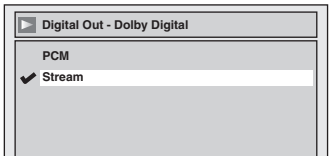
96kHz : If your amplifier/decoder is compatible with 96kHz PCM, select "96kHz". 96kHz sound will be output.

Note

When playing disc with copyright protection

- Even if you select "96kHz", the sound will be down sampled at 48kHz.

B Settings for Dolby Digital (Default : Stream)



- **Using [▲ / ▼], select a setting. Press [ENTER].**
  Your setting will be activated.

PCM : Convert the Dolby Digital into PCM(2 channel).
When your amplifier/decoder is NOT compatible with Dolby Digital, set to "PCM".

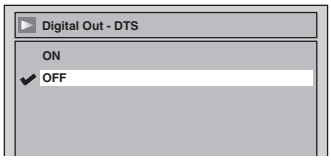
Stream : Outputs Dolby Digital signals.
When your amplifier/decoder is compatible with Dolby Digital, set to "Stream".

Note

When playing a DVD-RW disc recorded in VR mode

- If the audio source on a disc is Dolby Digital format, set "Dolby Digital" to "PCM" so that you can switch to main (L), sub audio (R), or a mix of both (L/R) with your amplifier/decoder.

C Settings for DTS (Default : OFF)



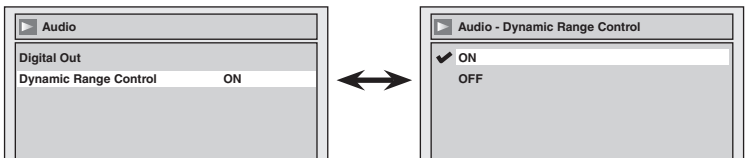
• Select a setting using [▲ / ▼], then press [ENTER].
Your setting will be activated.

ON : Outputs DTS signals.
When your amplifier/decoder is compatible with DTS, set to "ON".

OFF : No DTS signal is output.
When your amplifier/decoder is NOT compatible with DTS, set to "OFF".

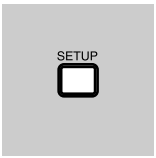
Dynamic Range Control (Default : ON)

Set to "ON" to compress the range between soft and loud sounds.



• Using [▲ / ▼], select a setting. Press [ENTER].
Your setting will be activated.

4 Press [SETUP] to exit.



Note

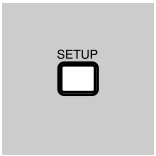
• Dynamic Range Control function is available only on the discs which are recorded in the Dolby Digital format.

Settings for Parental lock level

Some DVD-Video discs feature a Parental Lock level. Playback will stop if the ratings exceed the levels you set, it will require you to enter a password before the disc will playback. This feature prevents your children from viewing inappropriate material.

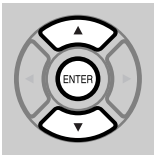
Press [STOP ■] if you are playing a disc.

1 Press [SETUP].

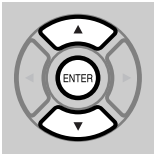


2 Using [▲ / ▼], select “Playback”. Press [ENTER].

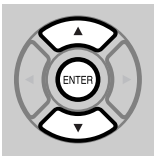
Playback menu will appear.



3 Using [▲ / ▼], select “Parental Lock”. Press [ENTER].

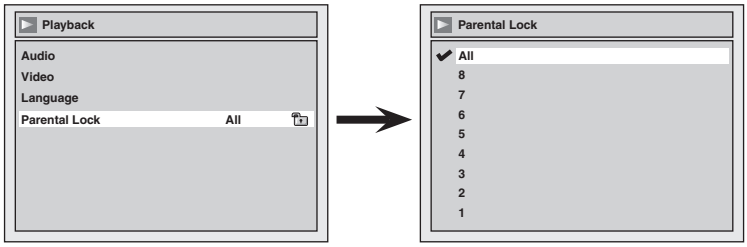


4 Using [▲ / ▼], select the desired level. Press [ENTER].



Parental Lock (Default : All)

Set the Parental Lock level.



• Using [▲ / ▼], change the parental level. Press [ENTER].

All :

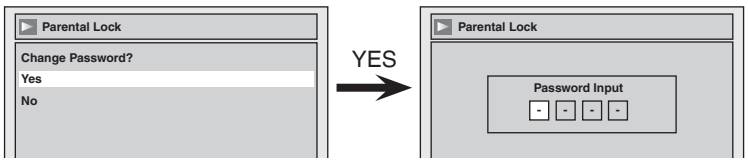
If you select “All”, Parental Lock is not active. The disc will play in full.

Ratings 1 to 8 :

Some discs contain scenes not suitable for children. If you set a rating for the DVD, all disc scenes with the same ratings or lower will be played. Higher rated scenes will not be played unless an alternative scene is available on the disc. The alternative must have the same rating or a lower one. If no suitable alternative is found, playback will stop. You must enter the 4-digit password or change the rating level in order to play the disc.

Option window will appear. Proceed to A or B.

A A password has not been set yet.



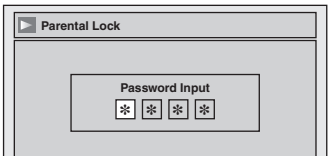
• Using [▲ / ▼], select “Yes”. Using the Number buttons, enter a new password. Press [ENTER].
Your setting will be activated.

• If you select “No”, proceed to step 5.

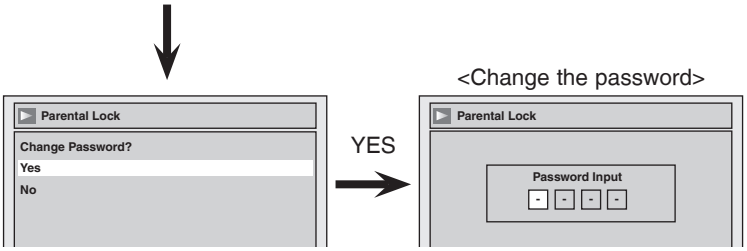
(Continued)

Settings for Parental lock level (cont'd)

B A password has already been set.

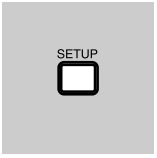


- **Using the Number buttons, enter the current password.**



- **Using [▲ / ▼], select "Yes". Using the Number buttons, enter a new password. Press [ENTER].**
  Your setting will be activated.
- **If you select "No", proceed to step 5.**

5 Press [SETUP] to exit.



- If the rating set is lower than the disc rating, a message will appear. Select "Yes" if you want to continue playback and input the password followed by [ENTER].
- **If there is a DVD disc inside of this unit when you set up the parental lock, press [OPEN/CLOSE ▲] to activate the parental lock level.**

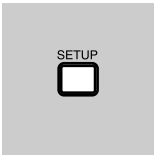
Notes

- Parental lock function may not be available on some discs.
- With some DVDs, it may be difficult to find if they are compatible with parental lock. Be sure to check if the parental lock function operates in the way that you have set.
- Record the password in case you forget it.
- Press [CLEAR] to erase numbers entered incorrectly.
- When you forget the password or you want to clear all settings in Parental lock, enter 4,7,3,7 using the Number buttons in Password Input window. Password will be cleared and parental levels will be set to "All".

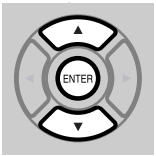
Settings for Progressive Scan Mode

This unit is compatible with the Progressive Scan System. The feature provides you with the higher definition images than the traditional output system does. To utilize this feature, you must set Progressive Scan mode to "ON" in the Setup menu by following the steps below.

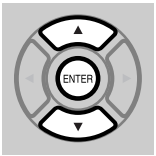
1 **Press [SETUP].**



2 **Using [▲ / ▼], select "Playback". Press [ENTER].**
Playback menu will appear.

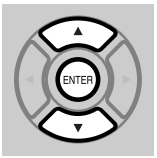


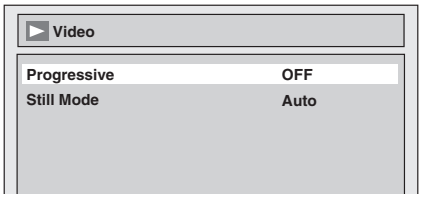
3 **Using [▲ / ▼], select "Video". Press [ENTER].**



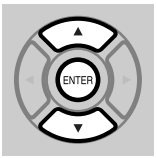
(Continued)

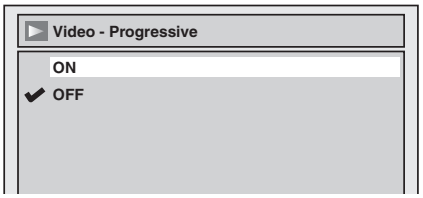
4 Using [▲ / ▼], select "Progressive". Press [ENTER].





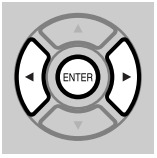
5 Using [▲ / ▼], select "ON". Press [ENTER].

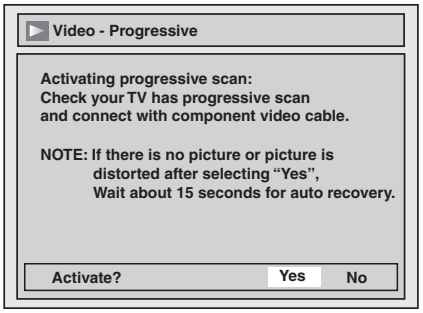




Confirmation window will appear.

6 Using [◄ / ►], select "Yes". Press [ENTER].



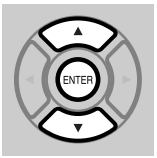


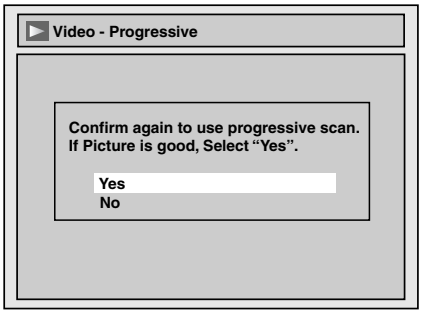
Final confirmation window will appear.

- **If your TV does not support progressive scan, distorted picture or blank screen will appear when "Yes" option is selected. In this case, just wait for 15 seconds for auto recovery.**

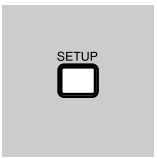
7 Using [▲ / ▼], select “Yes”. Press [ENTER] within 15 seconds.

Your setting will be activated.





8 Press [SETUP] to exit.



Notes

- If your TV is compatible with Progressive Scan (525p / 480p), you must use the Component Video cable (commercially available) to connect this unit to the TV. (See Method 2 on page 25.) Make sure the “P.SCAN” appears on the front panel display.
  If not, use the video cable and set the Progressive Scan mode to “OFF”, or press and hold [SETUP] for more than 3 seconds during DVD playback, so that the “P.SCAN” on the front panel display disappears.
- If there is no picture or picture is distorted after selecting “Yes” in step 6, wait about 15 seconds. It will go back to Video-Progressive menu automatically.

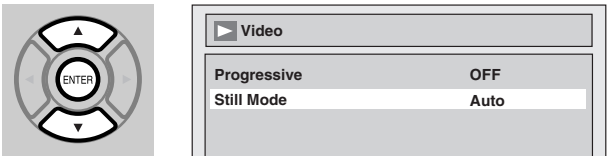
Settings for Still Mode

Press [STOP ■] if you are playing a disc.

Set the type of still image in pausing mode.

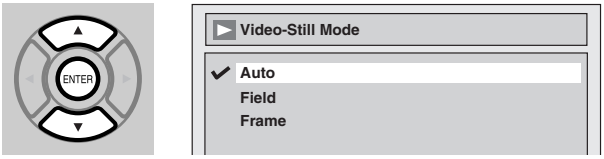
1 Follow steps 1 to 3 on page 143 to display the Video setting menu.

2 Using [▲ / ▼], select “Still Mode”. Press [ENTER].



3 Using [▲ / ▼], select a setting. Press [ENTER].

Your setting will be activated.



Auto : Optimum setting is selected.
Field : Flicker-free images are played back in pause playback mode.
Frame : Higher- resolution images are played back in pause playback mode.

4 Press [SETUP] to exit.

Note

• Frame is one complete video image and made up of 2 fields (There are 30 frame per second of NTSC video).

Others

- Troubleshooting
- Language code
- Glossary
- Specifications

Troubleshooting

Before requesting service for this unit, check below for a possible cause of the problem you are experiencing. Some simple checks or a minor adjustment on your part may eliminate the problem and restore proper operation.

Power

■ **The power does not turn on.**
- Check that the AC power cord is connected securely.
- (In case of power failure) Check the breaker.

Picture

■ **There is no picture.**
- Re-connect the connecting cords securely.
- Check if the connecting cords are damaged.
- If Setup menu appears on the TV screen, press [RETURN] to exit the menu.
- Check the connection to your TV (page 24).
- Check if the Interlace/Progressive mode is set correctly according to your TV (pages 143-145).
- Switch the input selector on your TV (such as to "LINE1") so that the signal from the unit appears on the TV screen.

■ **Picture noise appears.**
- The disc is dirty or flawed.
- If the video signal is sent to your TV through a VCR or if your TV is equipped with a VCR, the copy-protection signal applied to some DVD programs could affect picture quality. If you still experience this problem even when you connect the unit directly to your TV, try connecting the unit to your TV's S-VIDEO input.

■ **TV program reception does not fill the screen.**
- Try to set the channels with "Auto Preset" in the Setup menu (pages 32-33).
- Select a channel of any TV program using [CH ∨ / ∧].

■ **TV program pictures are distorted.**
- Adjust TV antenna.
- Adjust the picture (see the TV's instruction manual).
- Place the unit and TV farther apart.
- Place the TV and any bunched antenna cables farther apart.

■ **TV channels cannot be changed.**
- Switch the input to TV.
- Connect the antenna cable correctly (page 24).

■ **Playback picture is distorted**
- Keep the equipment which may cause electrical disturbances, such as a mobile phone, away.

Sound

■ **There is no sound.**
- The disc is dirty or flawed.
- Re-connect all connections securely.
- Check if the connecting cord is damaged.
- Check the connections to the amplifier input.
- The input source setting on the amplifier is incorrect.
- The recorder is in pause mode or in Slow forward / Slow reverse play.
- The recorder is in fast forward or fast reverse mode.
- If the audio signal does not come through the DIGITAL OUT (COAXIAL) jack, check the Audio settings (pages 137-139).

■ **No DTS sound on digital output.**
- Change the setting menu for DTS to ON.

■ **No DTS sound from analog output.**
- This unit has no analog sound output when playing the selected DTS sound mode.

■ **Sound is noisy.**
- The disc is dirty or flawed.

Remote control

■ **The remote control does not work.**
- Check the antenna or cable connection to the main unit.
- Check the battery life of the remote control.
- Check if there is an obstacle between the sensor and the remote control.

Playback

■ The disc does not play.
- No disc is inserted.
- A blank disc is inserted.
- The disc is upside down. Insert the disc with the labeled side facing up.
- The disc is not correctly inserted.
- The unit cannot play certain discs (such as a CD-ROM) (pages 9-10).
- The region code on the DVD-Video does not match the unit (page 10).
- Moisture has condensed inside the unit. Remove the disc and leave the unit turned on for about two hours until the moisture evaporates (page 4).
- If the disc was recorded on another recorder, the unit cannot play the disc if it was not finalized (page 51).

■ Playback image freezes for a second.
- During the playback of two layered disc, picture may freeze for a moment when the 1st layer switches to the 2nd layer. This is not a malfunction.

■ The disc does not start playback from the beginning.
- Resume play was activated (page 88). Press [STOP ■] twice.
- You have inserted a disc whose Title menu or DVD menu automatically appears on the TV screen when it is first insert.

■ The unit starts playing from the disc automatically.
- The DVD-Video features an auto playback function.

■ Some functions such as Stop, Search, Fast / Slow reverse or Fast / Slow forward cannot be performed.
- Depending on the disc, you may not be able to do some of the operations above. See the instruction manual supplied with the disc.

■ The language for the sound track cannot be changed.
- Multilingual tracks are not recorded on the DVD-Video, DVD-R or DVD-RW being played.
- The DVD-Video prohibits the changing of the language for the sound track.
- Try changing the language using the DVD-Video's menu.

■ The subtitle language cannot be changed or turned off.
- Multilingual subtitle are not recorded on the DVD-Video.
- The DVD-Video prohibits changing of the subtitles.
- Try changing the subtitle using the DVD-Video's menu.

■ The angles cannot be changed.
- Multi-angles are not recorded on the DVD-Video being played.
- The angle-change operation is whenever possible as long as the disc contains a multi-angle portion. Actual change will be performed when the portion has come up.
- The DVD-Video prohibits changing angles.
- Try changing the angle using the DVD-Video's menu.

Recording/Timer Recording/Editing

■ The channel cannot be changed from the channel you are recording.
- Set the TV's input to "TV".

■ Recording does not start immediately after you press [REC ●].
- A new DVD-R or DVD-RW has been inserted. It takes a while for the unit to automatically format a DVD-RW.

■ Nothing was recorded even though you set the timer setting correctly.
- There was a power failure during recording.
- The unit's internal clock stopped due to a power failure that lasted for more than 30 seconds. Reset the clock (pages 38-43).
- Disconnect the AC power cord from the AC outlet, and connect it again.
- The program contains copy protection signals that restricts copying.
- The timer setting overlapped with another setting that has priority.

■ Recording does not stop immediately after you press [STOP ■].
- It will take a few seconds for the unit to input disc data before recording can stop.

■ Timer Recording is not complete or did not start from the beginning.
- The timer setting overlapped with another setting that has priority (page 67).
- Disc space was not enough.

Others

■ **The unit does not operate properly.**

● When static electricity, etc., causes the unit to operate abnormally, unplug the unit and then plug it in again.

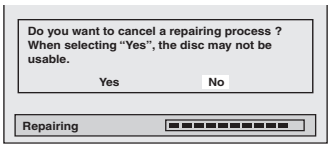
■ **The disc tray does not open when you press [OPEN/CLOSE ⏏].**

● It may take a few seconds for the disc tray to open after you have recorded or edited a disc.

■ **"Repairing" appears on the TV screen.**

● If there is a power failure or unplugging during recording, finalizing, formatting or editing (even after "Wait for a moment." message is disappeared), a Repairing process will begin automatically just after turning the unit on again. It may take several minutes up to about four hours.

■ **In a case you intend to cancel the Repairing process.**



● If you intend to cancel the Repairing process, press [⏏ OPEN/CLOSE] on the front panel, then select "Yes" with [◄ / ►] and press [ENTER]. After that, the disc tray will automatically open. **In case the Repairing process is canceled, the disc MAY NOT work.**

Error message

Error message	Cause	Solution
Disc Error --- Please eject the disc. --- Playback feature may not be available on this Disc.	• Unplayable disc is inserted in the unit. • The disc is upside down.	• Insert the standardized disc which bear the marks on pages 9-10. • Insert the disc with the labeled side facing up.
Region Error --- Please eject the disc. --- Playback is not authorized in your region.	• Playback is not authorized in the region of the DVD-Video disc which you inserted in the unit.	• Insert the DVD-Video disc with region codes 1 or ALL.
Parental Lock On The current selected parental level prohibits playback.	• The current selected parental level in the Setup menu prohibits playback.	• Check the "Parental Lock" setting (pages 140-142).
Recording Error This program is not allowed to be recorded.	• The recording function encountered the copy prohibited program.	• You cannot record copy prohibited programs.

Error message	Cause	Solution
Recording Error This program is not recordable in Video mode.	• You are trying to record the copy-once program onto the DVD-RW disc in Video mode.	• Set “Format mode” to “VR mode” (pages 52-54).
Recording Error Cannot record on this disc.	• You are trying to record onto the disc which is unrecordable, or whose status is unable to record. • The disc is dirty. • The disc is damaged.	• Insert the recordable disc, and ensure the disc status satisfies the recording requirements (page 9). • Clean the disc with a cleaning cloth. • Replace the disc.
Recording Error This program is not allowed to be recorded on this disc.	• You are trying to record the copy-once program onto the DVD-RW disc which is not compatible with CPRM.	• Insert the DVD-RW disc in VR mode (ver.1.1 or 1.2 compatible with CPRM).
Recording Error This disc is protected and not recordable.	• You are trying to record on to the protected disc which is set in the Disc menu.	• Release the disc protect setting in the Disc menu (pages 72-73).
Recording Error Disc is full. (No area for new recording)	• You are trying to record onto the disc which has no space for recording.	• Insert the recordable disc with enough recording space.
Recording Error You cannot record more than 99 titles on one disc. (The maximum is 99)	• You are trying to record onto the disc on which the number of recording titles exceed the maximum (99).	• Delete unnecessary titles (pages 102-104).
Recording Error You cannot record more than 999 chapters on one disc. (The maximum is 999)	• You are trying to record onto the VR mode DVD-RW disc on which the number of recording chapters exceed the maximum (999).	• Delete unnecessary chapter marks (pages 108-109).
Recording Error You cannot record on this disc as Control Information is full.	• This disc has no space to write the Control Information when recording or deleting contents. When editing has been repeatedly performed, the control Information area may come up to be full even the recording area has enough space.	• Delete unnecessary titles (pages 102-104).

Error message	Cause	Solution
Recording Error You cannot record on this disc as Power Calibration Area is full.	• When recordings are performed repeatedly onto an unstable disc, this area may come up to be full. Every time you insert a disc for recording, the disc's working area will be taken up. And if you repeat this frequently, it will be used up sooner and you may not be able to record full 99 titles.	• Insert a new disc.
Recording Error This disc is already finalized.	• You are trying to record onto the disc already finalized.	• Release the finalizing for this disc (page 75).

* If you are still having trouble with the unit after checking "Troubleshooting", write down the error code and the error description before calling the TACP's Consumer Solution Center or, for Canada, TCL customer support line mentioned on pages 157 and 158.

Frequently Asked Questions

■ **Can I record to CD-R/RW?**
No, this unit records only DVDs.

■ **Can I play DVD-Video that is bought in another country?**
Possible when the region code of the disc is 1 and All.

■ **Can I connect the unit to my PC?**
No, you cannot control the unit by PCs.

Language code

Language	Code
Abkhazian	4748
Afar	4747
Afrikaans	4752
Albanian	6563
Amharic	4759
Arabic	4764
Armenian	5471
Assamese	4765
Aymara	4771
Azerbaijani	4772
Bashkir	4847
Basque	5167
Bengali;Bangla	4860
Bhutani	5072
Bihari	4854
Bislama	4855
Breton	4864
Bulgarian	4853
Burmese	5971
Byelorussian	4851
Cambodian	5759
Catalan	4947
Chinese	7254
Corsican	4961
Croatian	5464
Czech	4965
Danish	5047
Dutch	6058
English	5160
Esperanto	5161
Estonian	5166
Faroese	5261
Fiji	5256
Finnish	5255
French	5264
Frisian	5271
Galician	5358
Georgian	5747
German	5051
Greek	5158
Greenlandic	5758
Guarani	5360
Gujarati	5367
Hausa	5447
Hebrew	5569
Hindi	5455

Language	Code
Hungarian	5467
Icelandic	5565
Indonesian	5560
Interlingua	5547
Interlingue	5551
Inupiak	5557
Irish	5347
Italian	5566
Japanese	5647
Javanese	5669
Kannada	5760
Kashmiri	5765
Kazakh	5757
Kinyarwanda	6469
Kirghiz	5771
Kirundi	6460
Korean	5761
Kurdish	5767
Laothian	5861
Latin	5847
Latvian; Lettish	5868
Lingala	5860
Lithuanian	5866
Macedonian	5957
Malagasy	5953
Malay	5965
Malayalam	5958
Maltese	5966
Maori	5955
Marathi	5964
Moldavian	5961
Mongolian	5960
Nauru	6047
Nepali	6051
Norwegian	6061
Occitan	6149
Oriya	6164
Oromo (Afan)	6159
Panjabi	6247
Pashto; Pushto	6265
Persian	5247
Polish	6258
Portuguese	6266
Quechua	6367
Rhaeto-Romance	6459
Romanian	6461

Language	Code
Russian	6467
Samoan	6559
Sangho	6553
Sanskrit	6547
Scots Gaelic	5350
Serbian	6564
Serbo-Croatian	6554
Sesotho	6566
Setswana	6660
Shona	6560
Sindhi	6550
Singhalese	6555
Siswat	6565
Slovak	6557
Slovenian	6558
Somali	6561
Spanish	5165
Sundanese	6567
Swahili	6569
Swedish	6568
Tagalog	6658
Tajik	6653
Tamil	6647
Tatar	6666
Telugu	6651
Thai	6654
Tibetan	4861
Tigrinya	6655
Tonga	6661
Tsonga	6665
Turkish	6664
Turkmen	6657
Twi	6669
Ukrainian	6757
Urdu	6764
Uzbek	6772
Vietnamese	6855
Volapuk	6861
Welsh	4971
Wolof	6961
Xhosa	7054
Yiddish	5655
Yoruba	7161
Zulu	7267

Glossary

■ Analog audio

An electrical signal that directly represents sound. Compare this to digital audio which can be an electrical signal, but is an indirect representation of sound. See Digital audio.

■ Aspect ratio

The width of a TV screen relative to its height. Conventional TVs are 4:3 (in other words, the screen is almost square); widescreen models are 16:9 (the screen is almost twice as wide as it is high).

■ Chapter

Just as a book is split up into several chapters, a title on a DVD disc is usually divided into chapters. See Title.

■ Component video output

Each signal of luminance(Y) and component(Pb/Cb, Pr/Cr) is independent to output so that you can experience picture color as it is.
Also, due to compatibility with progressive video (525p/480p), you can experience higher-density picture than that in interlace (525i/480i).

■ CPRM (Content Protection for Recordable Media)

CPRM is a copy protection system with scramble system regarding the recording of “copy-once” broadcast programs (e.g. some satellite broadcasts).

■ Digital audio

An indirect representation of sound by numbers. During recording, the sound is measured at discrete intervals (44,100 times a second for CD audio) by an analog-to-digital converter, generating a stream of numbers. On playback, a digital-to-analog converter generates an analog signal based on these numbers. See Sampling frequency and Analog audio.

■ Dolby Digital

The system to compress digital sound developed by Dolby Laboratories. It offers you sound of stereo (2ch) or Multi-channel audio.

■ DTS (Digital Theater System)

DTS is a 5.1 channel surround sound system, but it is different from Dolby Digital. The formats were developed by Digital Theater System, Inc.

■ Finalize

To make DVD discs, which have been recorded on, possible to play in DVD players. With this unit, it is possible to finalize DVD-R/DVD-RW discs.

■ MP3 (MPEG Audio Layer 3)

MP3 is a method of compressing files. You can copy MP3 files on CD-RW/R discs from the computer and play the files on this unit.

■ PBC (Video CD only) (Playback Control)

This function enables you to play back interactive software using a menu screen. See also Title.

■ PCM (Pulse Code Modulation)

The most common system of encoding digital audio, found on CDs and DAT. Excellent quality, but requires a lot of data compared to formats such as Dolby Digital and MPEG audio. For compatibility with digital audio recorders (CD, MD and DAT) and AV amplifiers with digital inputs, this unit can convert Dolby Digital and MPEG audio to PCM. See Digital audio.

■ Playlist

From this list you can play contents of a disc as your desired order or in sequence. Also it is allowed to search a specific scene directly.

■ Progressive Scan (525p/480p)

A type of display that does not split each frame into fields, and instead scans directly through all the scanlines of each frame in order. Progressive Scan provides less flickering and higher image resolution than traditional (525i/480i) TV signals. Refer to pages 143-145 for instructions on selective Progressive Scan mode.

■ Regions code

Regions associate discs and players with particular areas of the world. This unit will only play discs that have compatible region codes. You can find the region code of your unit by looking on the rear panel. Some discs are compatible with more than one region (or all regions).

■ Sampling frequency

The rate which sound is measured by a specified interval to turn into digital audio data. The numbers of sampling in one second defines as sampling frequency. The higher the rate, the better the sound quality.

■ SAP (Secondary Audio Program)

Sub audio channel which is delivered separately from main-audio channel. This audio channel is used as an alternative in bilingual broadcasting.

■ S-Video output

It delivers independently each signal of color(C) and luminance(Y) to TV as video signals, so that higher-quality picture will be gained.

■ Title

(DVD)
A collection of chapters on DVD disc. See chapter.

(Video CD)
The contents of a Video CD. When playing back a Video CD with the PBC function, the title menu will appear automatically.

■ Track

Audio CDs use tracks to divide up the content of a disc. The DVD equivalent is called a chapter. See Chapter.

■ WMA

WMA is the audio file compressing technology developed by Microsoft. You can copy WMA files on CD-RW/R discs from a computer and play them back on this unit.

Specifications

• This model complies with the below specifications.
• Designs and specifications are subject to change without notice.
• This model may not be compatible with features and/or specifications that may be added in the future.

General

■ **System**
DVD-Video, DVD-RW/R, CD-DA, CD-RW/R

■ **Power requirements**
AC120 V, 60 Hz

■ **Power consumption**
20 W (standby: 2.8 W)

■ **Weight**
5.1 lbs (2.3 kg)

■ **Dimensions (width x height x depth)**
17 3/16" x 2 5/8" x 9 5/8" (435 x 66 x 244 mm)

■ **Operating temperature**
41F° to 104F° (5°C to 40°C)

■ **Operating humidity**
Less than 80% (no condensation)

■ **TV format**
NTSC

Recording

■ **Recording format**
Video Recording format (DVD-RW only),
Video format (DVD-RW, DVD-R)

■ **Recordable discs**
DVD-Rewritable, DVD-Recordable

■ **Video recording format**
Sampling frequency : 13.5MHz
Compression format : MPEG

■ **Audio recording format**
Sampling frequency : 48kHz
Compression format : Dolby Digital

Tuner

■ **Receivable channels**
VHF : 2-13ch
UHF : 14-69ch
CATV : C1-C125ch

Input/Output

■ **VHF/UHF antenna input/output terminal**
VHF/UHF (75 Ω)

■ **Video input** [Input 1 (rear), 2 (front)]
Input level : 1 Vp-p (75 Ω)
Jacks : RCA jacks

■ **Video output** [Output 1 (rear)]
Output level : 1 Vp-p (75 Ω)
Jack : RCA jack

■ **S-Video input** [Input 1 (rear), 2 (front)]
Y (luminance) - Input level : 1 Vp-p (75 Ω)
C (color) - Input level : 286 mVp-p (75 Ω)
Jacks : 4 pin mini DIN

■ **S-Video output** [Output 1 (rear)]
Y (luminance) - Output level : 1 Vp-p (75 Ω)
C (color) - Output level : 286 mVp-p (75 Ω)
Jack : 4 pin mini DIN

■ **Component video output** [Output 1 (rear)]
Output level : Y: 1.0 Vp-p (75 Ω),
P_B/C_B, P_R/C_R: 0.7 Vp-p (75 Ω)
Jacks : RCA jacks

■ **Audio input** [Input 1 (rear), 2 (front) L/R]
During audio input : 2V rms (Input impedance: more than 22 kΩ)
Jacks : RCA jacks

■ **Audio output** [Output 1 L/R (rear)]
During audio output : 2V rms (Output impedance: less than 1 kΩ)
Jacks : RCA jacks

■ **Digital audio output** [Output 1 (rear) COAXIAL]
Output level : 500 mVp-p (75 Ω)
Jacks : RCA jack

Limited United States Warranty
Digital Audio Video ("DAV") Product - Exchange Warranty

Toshiba America Consumer Products, L.L.C. ("TACP") makes the following limited warranties to original consumers in the United States. THESE LIMITED WARRANTIES EXTEND TO THE ORIGINAL CONSUMER PURCHASER OR ANY PERSON RECEIVING THIS DAV PRODUCT AS A GIFT FROM THE ORIGINAL CONSUMER PURCHASER AND TO NO OTHER PURCHASER OR TRANSFEREE.

DAV PRODUCTS PURCHASED IN THE U.S.A. AND USED ANYWHERE OUTSIDE OF THE U.S.A., INCLUDING, WITHOUT LIMITATION, CANADA AND MEXICO, ARE NOT COVERED BY THESE WARRANTIES.

DAV PRODUCTS PURCHASED ANYWHERE OUTSIDE OF THE U.S.A., INCLUDING, WITHOUT LIMITATION, CANADA AND MEXICO, AND USED IN THE U.S.A., ARE NOT COVERED BY THESE WARRANTIES.

Limited Warranty
TACP warrants this DAV Product and its parts against defects in materials or workmanship for a period of ninety (90) days after the date of original retail purchase.
DURING THIS PERIOD, TACP WILL EXCHANGE A DEFECTIVE DAV PRODUCT WITH A NEW OR REFURBISHED DAV PRODUCT WITHOUT CHARGE TO YOU. DURING THE PERIOD THAT COMMENCES ON THE DATE THAT IS NINETY ONE (91) DAYS AFTER THE DATE OF ORIGINAL RETAIL PURCHASE AND ENDS ON THE DATE THAT IS THREE HUNDRED SIXTY FIVE (365) DAYS AFTER THE DATE OF ORIGINAL RETAIL PURCHASE, TACP WILL EXCHANGE A DEFECTIVE DAV PRODUCT WITH A NEW OR REFURBISHED DAV PRODUCT FOR A FEE.

Rental Units
The warranty for DAV Product rental units begins on the date of the first rental or thirty (30) days after the date of shipment to the rental firm, whichever comes first.

Commercial Units
DAV Products sold and used for commercial purposes have a limited warranty for all parts and labor, which warranty begins on the date of original retail purchase and ends on the date that is ninety (90) days thereafter.

Owner's Manual and Product Registration Card
Read this owner's manual thoroughly before operating this DAV Product.

Complete and mail the enclosed product registration card or register your DAV Product on-line at www.tacp.toshiba.com/ser vice as soon as possible. By registering your DAV Product you will enable TACP to bring you new products specifically designed to meet your needs and help us to contact you in the unlikely event a safety notification is required under the U.S. Consumer Product Safety Act. Failure to complete and return the product registration card does not diminish your warranty rights.

Your Responsibility

THE ABOVE WARRANTIES ARE SUBJECT TO THE FOLLOWING CONDITIONS:

(1) You must retain your bill of sale or provide other proof of purchase.

(2) All warranty servicing of this DAV Product must be made pursuant to the TACP DAV Product Warranty Exchange Program.

(3) The warranties from TACP are effective only if the DAV Product is purchased and operated in the Continental U.S.A. or Puerto Rico.

(4) Labor service charges for set installation, setup, adjustment of customer controls, and installation or repair of antenna systems are not covered by this warranty. Reception problems caused by inadequate antenna systems are your responsibility.

(5) Warranties extend only to defects in materials or workmanship as limited above, and do not extend to any DAV Product or parts that have been lost or discarded by you or to damage to the DAV Product or parts caused by fires, misuse, accident, Acts of God (such as lightning or fluctuations in electric power), improper installation, improper maintenance, or use in violation of instructions furnished by TACP; use or malfunction through simultaneous use of this DAV Product and connected equipment; or to units that have been modified or had the serial number removed, altered, defaced, or rendered illegible.

How to Obtain Warranty Services
If, after following all of the operating instructions in this manual and checking the section "Troubleshooting," you find that service is needed:

(1) For instructions on how to obtain warranty service for your DAV Product under the TACP DAV Product Warranty Exchange Program, contact TACP's Consumer Solutions Center toll free at 1-800-631-3811.

(2) You must include the original bill of sale (or a copy of the original bill of sale) or other proof of purchase along with the entire DAV Product when sending the DAV Product to the TACP Warranty Exchange Center specified by TACP's Consumer Solutions Center. You are responsible for all inbound transportation and insurance charges for the DAV Product to the TACP Warranty Exchange Center.

For additional information, visit TACP's website: www.tacp.toshiba.com

ALL WARRANTIES IMPLIED BY THE LAW OF ANY STATE OF THE U. S.A., INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY LIMITED TO THE DURATION OF THE LIMITED WARRANTIES SET FORTH ABOVE. WITH THE EXCEPTION OF ANY WARRANTIES IMPLIED BY THE LAW OF ANY STATE OF THE U.S.A. AS HEREBY LIMITED, THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, GUARANTEES, AGREEMENTS, AND SIMILAR OBLIGATIONS OF TACP WITH RESPECT TO THE REPAIR OR REPLACEMENT OF ANY PARTS. IN NO EVENT SHALL TACP BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, BUSINESS INTERRUPTION, OR MODIFICATION OR ERASURE OF RECORDED DATA CAUSED BY USE, MISUSE OR INABILITY TO USE THIS DAV PRODUCT).

No person, agent, distributor, dealer, or company is authorized to change, modify, or extend the terms of these warranties in any manner whatsoever. The time within which an action must be commenced to enforce any obligation of TACP arising under the warranty or under any statute or law of the United States or any state thereof is hereby limited to ninety (90) days from the date you discover, or should have discovered, the defect. This limitation does not apply to implied warranties arising under state law.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH MAY VARY FROM STATE TO STATE IN THE U.S.A. SOME STATES OF THE U.S.A. DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, WHEN AN ACTION MAY BE BROUGHT, OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE PROVISIONS MAY NOT APPLY TO YOU UNDER SUCH CIRCUMSTANCES.

TOSHIBA

- IMPORTANT -
CANADIAN WARRANTY INFORMATION
GARANTIE CANADIENNE

STANDARD WARRANTY		GARANTIE NORMALE	
TYPE OF SET	DVD Player DVD/VCR Combination Home Theatre in a Box DVD Recorder Portable DVD	TYPE D'APPAREIL	Lecteur DVD DVD/magnétoscope combo Cinéma maison dans une boîte Enregistreur DVD DVD Portatif
WARRANTY PERIOD	12 MONTHS	DURÉE DE LA GARANTIE:	12 MOIS

CANADIAN WARRANTY

Toshiba of Canada Limited (TCL) makes the following limited warranties to original consumers in Canada. Please retain your "Bill of Sale" as proof of purchase. **To obtain a "Canadian Warranty" please register online at www.toshiba.ca**.

GARANTIE CANADIENNE

1) Toshiba du Canada Limitée (TCL) offre au Canada les garanties limitées suivantes aux consommateurs originaux. Veuillez conserver votre « facture » comme preuve d'achat. **Pour obtenir une garantie canadienne, veuillez vous inscrire en ligne à www.toshiba.ca**

Canadian Warranty Information

Should service be required on this unit during the one year warranty period, TCL's option will be to repair or exchange the defective unit. It will be necessary to follow this procedure:
Contact: Toshiba of Canada Limited at the Consumer Electronics Group, customer support line.
Phone: 1-800-268-3404
Email: ceg_customer_support@toshiba.ca

All in-warranty repairs must be made by an authorized TCL service centre.

For service exchange TCL will arrange to have the unit picked up by courier and a replacement unit will be returned via same courier. (Note: A major credit card number will be required as a charge of $25.00 will apply if no fault is found with the unit.)
During the first 3 months of ownership, a new unit will be supplied as a replacement. During the remainder of the warranty period a service-renewed unit will be supplied.
The original "Bill of Sale" must be provided as proof of purchase (it will be returned with the replacement unit.)
This 12-month warranty will be strictly adhered to.
Out of warranty units should be repaired by a TCL authorized service centre.
Note: It is the responsibility of the owner to ensure proper packaging. Should damage in shipping occur, due to poor packaging, a charge back for the repair will result.
This warranty applies to the original purchaser only and is not transferable.
This warranty does not apply to sets that have been subjected to misuse, neglect, accident, physical damage or acts of nature.
Sets with the serial number removed, altered, replaced or defaced will not be covered by this warranty.
The warranties from TCL are effective only if the product is purchased in Canada from an authorized TCL dealer and operated in Canada.
Products utilized for rental or commercial purposes are not covered by this warranty.
This warranty is in lieu of all other warranties, guaranties or agreements, whether expressed or implied, and no person, agent distributor, dealer, service centre or company is authorized to change, modify or extend its terms in any manner whatsoever.

Information sur la garantie Canadienne

Si vous avez besoin de service sur cet appareil au cours le l'année de garantie, Toshiba du Canada Limitée aura l'option de réparer ou échanger l'appareil défectueux. Vous devrez suivre la procédure suivante:
Contact: Toshiba du Canada Limitée au Groupe Électronique aux consommateurs, service à la clientèle.
Tél: 1-800-268-3404
Courriel: ceg_customer_support@toshiba.ca

Toutes les réparations au cours de la garantie doivent être faites par un centre de service autorisé Toshiba.

Pour un échange TCL s'assurera qu'un service de courrier ramassera l'unité et qu'un appareil de remplacement soit expédié par le même service de courrier.
(Note: Un numéro de carte de crédit sera requis car une charge de 25,00$ sera appliquée si toutefois l'appareil n'avait aucun problème de fonctionnement.)
Une nouvelle unité sera fournie comme remplacement durant les premiers 3 mois de propriété. Par contre durant la balance de la garantie une unité remise à neuf sera fournie.
La «facture originale doit être fournie comme preuve d'achat (elle vous sera retournée avec l'unité de remplacement.)
Cette garantie de 12 mois sera strictement adhérée.
Les unités hors de garantie devraient être réparées par un centre de service autorisé Toshiba.
Note: C'est la responsabilité du propriétaire de s'assurer que l'emballage est adéquat. Vous serez facturé pour toutes réparations causées par des dommages encourus à cause d'un emballage non adéquat.
Cette garantie est octroyée à l'acheteur initial et n'est pas transférable. Cette garantie ne s'aplique pas aux appareils qui ont été sujets aux abus, négligences, accidents, dommages physiques ou actes naturels.
Les appareils dont le numéro de série a été enlevé, altéré, remplacé ou barbouillé ne sont pas couverts par cette garantie.
Les garanties de TCL sont valides seulement sur les unités sont achetées et utilisées au Canada d'un marchand autorisé TCL.
Cette garantie ne couvre pas les produits de location ou à usage commercial. Cette garantie remplace toutes autres garanties ou ententes exprimées ou sous-entendues. Aucune personne, agent, distributeur, concessionaire ou compagnie n'est autorisé à changer, modifier ou prolonger les termes de cette garantie de quelque façon que ce soit.

Toshiba of Canada Limited 191 McNabb Street Markham, Ontario L3R 8H2